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ANUARY 1976 VOLUME 27 NUMBER 1

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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DIRECTOR
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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

JANUARY 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

nost notable weather in January was the below
al precipitation over most of the Nation. The
ıern Plains, the Southwest, and all of California
hurt the most by this dry month. Exceptions to
trend were the Northeast and north central
ıs where heavy snow occurred, and portions of
Southeast and the Pacific Northwest where rain-
was normal or above normal. Temperatures aver-
below normal east of the Mississippi River
ey and above normal to the west, except in the
ral and southern Rockies where temperatures
aged 3 to 5° below normal. Elsewhere in the
average temperatures ranged from near normal
g the central coastline to 10 to 12° above nor-
in Montana.

shortage of January precipitation was especially
ous in California, where the first month of the
is the middle of its 3-month rainy season, and
mber was also dry. Winter rain and snow in the
fornia mountains normally supply most of the
gation water throughout the year. Another criti-
condition is the lack of snow cover in the cen-
Plains, where temperatures have been above nor-
precipitation below normal, and the exposed
is subject to erosion.

ary began with a powerful winter storm that moved
the Pacific Northwest into the central Rockies
then spread into the northern Plains, creating
zard to near blizzard conditions over much of
western two-thirds of the Nation. Temperatures
aged 10 to 12° below normal in the central
ies. Elsewhere heavy precipitation focused a-
the Appalachians, lower Mississippi Valley, and
ral Gulf States. By the end of the week freez-
temperatures had pushed all the way to the Gulf
lexico.

ng the second week of the month nearly all of
area from the Rockies eastward had below normal readings. Temperatures ranged from 10 to 12° below normal in the northern Plains and along the Appalachians and 12 to 15° below normal in New England. The southern limit of zero degree readings ran from southern New England to the Texas Panhandle and northern New Mexico and northward along the Rockies. Freezing weather pushed into central Florida. Heaviest precipitation occurred in the Pacific Northwest--more than 5 inches along the Oregon Coast--along the Appalachians, and in the Southeast. Early in the week blustery winter wind and swirling snow spread from Kansas through Iowa, Michigan, and New England. By the end of the week, though, the wind and warming weather had cleared the snow cover from the central Plains.

Temperatures warmed in the central Plains during the third week of the month and all areas west of the Mississippi River averaged above normal readings. Departures ranged from 3° above normal in Texas to 12° above normal in parts of Kansas and Nebraska to 18° above normal in north central Montana. East of the Mississippi average temperatures ranged from 3 to 6° below normal. Precipitation was sparse nationwide. Large areas of the West and Southwest recorded no precipitation at all. As usual, however, western New York had more than its share, when a heavy snow squall dumped 15 inches near Oswego.

Most precipitation at the end of the month occurred from the Appalachians to the East Coast where 2 inches or more fell during the last week. Westward, amounts ranged from zero to 0.3 inche. Temperatures were colder than normal only in the Great Lakes area and in the extreme South. California and the central and southern High Plains complained of the dry weather.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

JANUARY 1976

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	Chatom 4 N	78	24	Haleyville 3 NE	- 2	9	Ashland 2 SSE	9.36	Fairhope 2 NE	1.79
Alaska	Annette WSO AP	55	20	Umiat	-58	27	Little Port Walter	36.20	Nenana Municipal Airport	.01
Arizona	Organ Pipe Cactus N M	87	17	Hawley Lake	-29	2	Hawley Lake	1.60	28 Stations	.00
Arkansas	Morobay Lock 8	76	31	Deer	- 5	9+	Portland	7.32	Fayetteville Exp. Station	.14
California	2 Stations	92	17+	White Mountain 1	-15	1	Gasquet Ranger Station	9.19	142 Stations	.00
Colorado	Pueblo WSO AP	73	29	Antero Reservoir	-41	2	Berthoud Pass	3.82	Saguache	.00
Connecticut	Westbrook	57	27	Norfolk 2 SW	-16	23	Saugatuck Reservoir	7.92	Falls Village	4.87
Delaware	Dover	70	26	2 Stations	3	19	Dover	6.76	Lewes 1 SW	3.41
Florida	2 Stations	89	27+	Fountain 3 SSE	13	19	Chipley 3 E	6.59	Archbold Biologic Station	.08
Georgia	3 Stations	79	27+	Jasper 1 NNW	2	9	Donalsonville 1 S	8.65	Brunswick FAA AP	1.51
Hawaii	Makahuena-Kauai 940.1, Ka.	87	30+	Mauna Loa Slope Obs, Hawaii	24	31+	Hilo Country Club 86.6, Ha.	33.19	2 Stations	.00
Idaho	3 Stations	57	28	Warren	-24	1	Pierce	7.77	Oakley	.14
Illinois	Cahokia	69	24	2 Stations	-21	28+	Brookport Dam 52	3.27	Avon 5 NE	.27
Indiana	Saint Meinrad	62	13	Wheatfield 2 NNW	-16	18	Seymour 2 N	4.66	Elkhart	.85
Iowa	2 Stations	60	24+	2 Stations	-20	8+	Donnellson	1.28	4 Stations	T
Kansas	Scott City	74	29	Mankato	-14	8+	La Cygne	1.00	12 Stations	.00
Kentucky	Paducah Sewage Plant	67	14	Flemingsburg 1 SW	-12	9	Caneyville	6.28	Henderson 7 SSW	2.02
Louisiana	3 Stations	79	31+	Logansport 4 ENE	11	8	Saint Joseph Exp. Station	6.63	Houma	.67
Maine	Belfast	54	27	Van Buren 2	-41	11	Jonesboro	8.67	Presque Isle	1.94
Maryland	Denton 1 S	71	26	Oakland 1 SE	-13	19	Towson	7.38	Cumberland Police Brks.	2.52
Massachusetts	Fall River	60	27	Chester 2	-30	19	Hardwick	7.08	Adams	4.09
Michigan	Detroit Metro WSO AP	46	26	Crystal Falls 6 NE	-30	18+	Whitefish Point	5.94	Battle Creek	.80
Minnesota	2 Stations	44	29	Hoyt Lakes 5 N	-40	27	Tower 3 S	1.93	2 Stations	.07
Mississippi	Woodville 4 ESE	76	31	University	5	9	Crandall 12 N	6.77	Wiggins 3 SSE	.86
Missouri	Dora	72	24	2 Stations	-16	9	Kennett Radio KBOA	3.14	Galena	.00
Montana	Grassrange	65	17	Terry	-44	8	Summit	4.77	Judith Gap	.00
Nebraska	2 Stations	65	23+	3 Stations	-26	4	Hemingford	1.83	Sprague	T
Nevada	Sunrise Manr Las Vegas	80	16	Rand Ranch Palisade	-15	2+	Emigrant Pass Highway Sta.	.83	19 Stations	.00
New Hampshire	Windham 3 NW	54	27	Mount Washington	-44	22	Mount Washington	11.87	Berlin	2.99
New Jersey	Pemberton 3 E	68	26	Flemington 3 E	- 9	18	Seabrook Farms	6.66	Cape May 2 NW	3.25
New Mexico	2 Stations	79	15+	Tres Piedras	-29	26	Ruidoso 2 NNE	1.25	23 Stations	.00
New York	NY Westerleigh Staton Is.	64	26	Old Forge	-43	19	Slide Mountain	10.62	Ogdensburg 4 NE	D 1.27
North Carolina	5 Stations	74	28+	Oconaluftee	-11	18	Lake Toxaway 2 SW	8.78	New Bern FAA AP	1.77
North Dakota	Watford City 14 S	52	17	Marmarth	-43	8	Fullerton 1 ESE	1.61	Ambrose 3 N	.08
Ohio	Ironton	62	25	Dorset	-17	18	Chardon	5.76	Summerfield 2 NE	1.45
Oklahoma	Idabell	77	30	Beaver	- 7	8	Zoe 1 E	1.56	45 Stations	.00
Oregon	2 Stations	75	31+	Rockville 5 N	-14	1	Valsetz	24.49	Paisley	.09
Pennsylvania	2 Stations	66	26	Clermont 4 NW	-30	19+	Port Clinton	7.84	Madera	1.36
Puerto Rico	San Sebastian 2 WNW	91	25	2 Stations	48	31+	Pico Del Este	9.25	5 Stations	.00
Rhode Island	3 Stations	57	28+	Providence WSO AP	-13	23	North Foster 1 E	7.76	New Port	5.42
South Carolina	Ridgeland 5 NE	78	26	Caesars Head	3	18	Longcreek 1 N	7.65	Charleston WSO AP	1.62
South Dakota	2 Stations	64	30+	Usta 8 WNW	-38	8	Bowdle	2.12	Porcupine 16 NW	T
Tennessee	6 Stations	69	24+	Crossville Exp. Station	- 9	9	Linden 2	8.49	Bolton	2.54
Texas	Armstrong	90	13	Lipscomb	-11	8	Harleton	6.74	71 Stations	.00
Utah	La Verkin	71	17	Scofield	-26	2	Alto	3.60	10 Stations	.00
Vermont	Dorset 1 S	55	27	Enosburg Falls	-34	24	Searsburg Station	6.12	South Hero	2.42
Virginia	Norfolk WSO AP	75	26	Burkes Garden	-11	19	2 Stations	6.72	Covington Filt Plant	1.76
Virgin Islands	Frenchmans Bay	86	19+	Cruz Bay	62	29	Bordeaux Mountain	2.32	Water Isle	.71
Washington	Sunnyside	66	16	Mazama	- 4	1	Quinault Ranger Station	25.44	Moxee City 10 E	.33
West Virginia	Logan 2 ESE	69	26	Canaan Valley	-19	19	Hacker Valley	5.89	Moorefield 2 SSE	.97
Wisconsin	Prairie Du Chien	42	28	3 Stations	-39	17	Shawano	3.72	Lancaster 4 WSW	.15
Wyoming	2 Stations	62	30+	2 Stations	-29	8+	Snake River	5.37	6 Stations	T

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days sunrise to sunset: Clear, 0-3	No. of days sunrise to sunset: Partly cloudy, 4-7	No. of days sunrise to sunset: Cloudy, 8-10	Sky cover, tenths, sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm			m/s							%
ALABAMA																																
BIRMINGHAM	189	1000.3	1023.2	16.1	+2.7	9.4	-2.8	29.4	30	-12.2	9	0	24	-1.7	71	105	+48	54	9	5	T	T	14.7	24	24.1	NW	13	13	7	11	5.0	04
HUNTSVILLE	190	999.3	1023.4	7.8	+3.1	2.4	-2.6	16.1	23+	-12.2	9	0	24	-2.2	73	100	+38	35	11	6	5	T	14.8	27	32.5	19	13	13	6	12	5.3	
MOBILE	64	1015.2	1023.1	16.4	3.0	9.7	-0.9	23.3	30	-5.6	9	0	11	2.2	84	46	+76	18	8	1	0	0	0.8	36	14.2	35	8	13	5	13	5.1	
MONTGOMERY	59	1015.9	1023.4	13.2	-0.4	6.4	-2.2	22.2	24	-7.8	9	0	21	-1.1	84	77	+25	40	7	6	T	T	4.9	33	13.9	S	13	12	10	7	6.3	01
ALASKA																																
ANCHORAGE	35	997.0	1002.0	-5.4	-11.2	-8.3	2.9	4.4	19+	-23.3	11+	0	31	-11.7	75	25	4	6	13	3	240	330	1.8	8	13.0	20	30	3	8	20	7.7	18
ANNETTE	34	1007.1	1011.3	5.2	1.5	3.4	2.6	12.8	20	-6.1	13	0	11	0.0	80	422	157	79	26	4	480	654	4.0	14	14.3	18	30	0	1	30	9.7	
BARROW	9	1016.9	1017.5	-25.2	-31.4	-28.3	-2.3	-8.3	1	-40.6	19	0	31	-31.1	77	1	-5	1	3	0	26	196	1.0	7	11.6	26	16+					
BARTER ISLAND	12	1014.6	1016.8	-25.5	-32.8	-29.2	-2.9	-12.2	1	-45.0	26	0	31	-31.7	76	5	-9	2	5	0	53	203	0.8	26	29.5	27	11					
BETHEL	38	995.9	1001.7	-13.6	-21.3	-17.4	-2.5	1.1	29+	-30.0	11	0	31	-20.6	74	8	-6	3	8	0	157	483	5.1	2	18.3	8	20	3	8	17	4.7	
BETTLES	194			-22.0	-28.8	-25.4	-0.3	-3.3	30	-43.9	10	0	31			12	-6	3	9		333	686			9.8	8	7	12	6	13	5.7	
BIG DELTA	386			-15.4	-23.7	-19.4	1.1	4.4	19	-38.9	9	0	31			2	-7	1	3		64	279											
COLD BAY	29	991.9	995.4	-0.5	-6.7	-3.6	-1.5	3.3	23+	-17.2	22	0	27	-5.0	87	48	+24	7	21	6	411	652	4.3	1	21.5	14	1	2	5	24	8.4	
FAIRBANKS	133	990.5	1008.8	-20.1	-28.2	-24.2	0.2	-0.6	30	-40.6	10+	0	31	-28.9	66	4	+26	2	8	1	163	381	0.7	36	9.8	25	30	13	4	14	5.4	
GULKANA	479			-14.6	-23.1	-18.8	3.0	3.3	29	-42.2	7	0	31			10	-4	3	6		185	479											
HOMER	19			-2.4	-8.6	-5.4		4.4	29+	-18.9	12	0	30			68	25	23	13	2	287	476			13.4	25	30	5	5	21	9.6	
JUNEAU	4	1008.1	1008.9	0.4	-4.6	-2.1	2.7	6.7	31+	-19.4	13	0	22	-5.0	81	208	108	47	22	0	836	654	3.8	1	13.4	12	30	1	6	23	9.2	19
KING SALMON	15	995.6	997.7	-6.1	-15.8	-10.9	-0.6	2.8	25+	-36.1	11	0	31	-13.9	80	31	8	12	11	0	305	686	1.8	7	15.6	18	24	9	3	19	4.3	
KODIAK	4	993.6	997.8	1.8	-3.9	-1.1	-0.2	4.4	30+	-17.8	23	0	25	-3.9	80	268	140	55	21	0	1008	432	1.4	36	14.3	16	24	3	5	23	7.6	
KOTZEBUE	3	1009.5	1009.8	-17.1	-24.1	-20.6	-0.8	-1.1	1	-32.2	9	0	31	-25.6	64	8	2	3	5	0	116	356	3.2	7	16.5	11	6	11	6	14	5.6	
MC GRATH	105	992.6	1006.2	-20.7	-30.6	-25.7	-2.9	-2.8	30	-45.6	10+	0	31	-27.8	78	26	5	11	11	1	419	737	0.3	4	11.6	26	30	2	4	15	5.6	
NOME	4	1005.8	1006.5	-12.9	-22.6	-17.8	-3.3	-1.1	1	-32.8	8	0	31	-21.1	74	10	-13	4	6	1	163	629	2.6	6	13.4	27	24	12	6	13	5.5	24
ST. PAUL ISLAND	7	998.0	999.0	-2.8	-8.3	-5.6	-2.3	4.4	1	-25.6	29	0	29	-7.8	83	19	+28	7	13	1	239	603	5.9	5	24.1	7	23	5	10	16	8.8	
SUMMIT	731			-12.8	-19.9	-16.3	0.6	1.1	30+	-32.2	9	0	31			55	32	29	12	0	1264	1067			12.5	23	30	11	4	16	6.1	
TANANA	105			-7.8	-18.3	-13.1	-0.5	2.8	30	-35.6	12+	0	31			22	-19	8	6	1	356	635			11.4	17	30						
UNALAKLEET	5																								26.8	6	24					
VALDEZ	7	1002.7		-2.9	-7.9	-5.4	2.5	3.3	30	-20.0	8+	0	31			178	49		16		244		2.0	8	10.3	17	4+	10	3	18	6.6	
YAKUTAT	9	1003.4	1004.4	0.8	-6.3	-2.8	1.6	5.6	30	-21.7	6	0	21	-3.9	89	396	183	80	24	0	1730	1041	2.6	11	17.0	13	29	3	3	25	8.4	
ARIZONA																																
FLAGSTAFF	2135	789.4	1023.6	7.2	-8.8	-0.8	1.5	15.0	30	-24.4	2	0	30	-11.1	51	4	+44	4	2	0	38	102	1.4	5	11.6	NW	6	19	8	4	3.4	91
PHOENIX	339	980.4	1019.8	20.6	5.4	13.0	2.3	28.3	17+	-3.3	2+	0	4	-3.3	36	T	+18	T	0	0	0	0	1.5	11	15.6	NE	2	26	7	4	2.9	90
TUCSON	788	929.2	1018.4	19.1	3.8	11.4	0.9	26.1	17	-5.0	2	0	9	-6.1	34	2	+18	2	1	1	0	0	1.9	13	19.8	NE	11	24	5	2	2.4	90
WINSLOW	1492	856.4	1026.1	9.2	-8.3	0.4	0.1	17.2	9	-15.0	2	0	31	-8.9	58	2	-8	2	1	1	0	0	1.7	23	11.6	25	12	17	7	5	3.7	
YUMA	59	1012.2	1019.7	21.3	6.1	13.7	0.7	28.3	17	-2.8	1	0	2	-3.3	34	1	-8	1	1	0	0	0	2.0	36	10.7	N	1	22	6	3	2.7	85
ARKANSAS																																
FORT SMITH	136	1005.8	1022.9	10.6	-5.2	2.7	-1.2	20.6	24	-14.4	8	0	27	-5.0	62	8	+52	6	4	0	7	0	1.3	32	14.5	NW	16+	16	7	8	3.1	74
LITTLE ROCK	78	1013.2	1022.9	10.9	-2.4	4.3	0.1	21.7	13	-12.8	8	0	23	-1.7	68	63	+45	21	9	1	7	T	1.7	27	13.0	SW	23	15	9	10	4.8	
CALIFORNIA																																
BAKERSFIELD	145	1005.4	1023.4	16.3	3.5	9.9	1.3	25.6	31	-2.8	1	0	4	2.8	60	1	+23	1	1	0	0	0	0.4	5	8.7	35	9	18	8	5	3.6	
BISHOP	1252	879.4		15.5	+6.6	4.4	1.6	23.3	16	+13.3	1	0	30			5	+31	1	1	0	0	0				18.3	V	18	12	4	5	4.3	
BLUE CANYON	1609	842.9		10.8	2.1	6.4	4.0	19.4	16	+8.9	1	0	12	+7.8	43	32	+315	25	3		244	203	1.8	4	8.4		16					
EUREKA Ø	13			11.4	4.6	8.0	+0.5	17.8	29	+1.1	1	0	5			48	+141	22	11		0	0			11.6	NW	5	3	5	23	8.2	65
FRESNO	100	1011.9	1023.7	14.3	-0.7	6.8	-0.6	20.6	31	-6.7	2	0	2	1.7	74	1	+46	1	1	0	0	0	1.3	8	8.0	NW	9	11	10	10	4.9	78
LONG BEACH	8	1018.3	1019.7	23.9	7.3	15.6	3.3	32.8	16	1.1	2	0	0	4.4	55	2	+57	1	1	0	0	0	2.4	31	8.9	W	19	19	11	1	2.8	
LOS ANGELES	30	1015.9	1019.6	22.6	8.6	15.6	3.1	31.1	17+	2.2	2	0	0	3.9	57	2	+64	1	1	0	0	0	2.0	24	9.8	N	9	17	13	1	2.9	
LOS ANGELES Ø	82			22.5	7.9	15.2	1.5	30.6	17	1.1	2	0	0			2	+78	1	1	0	0	0			7.6	SE	22	14		1	3.4	85
MT SHASTA R	1080	899.1	1026.4	7.6	-3.6	2.0	1.1	16.7	31	-12.0	2+	0	1	-3.7	71	12	+107	3	6		102	51	1.4	36								
OAKLAND	2	1023.7	1023.8	13.6	3.9	8.7	-0.5	20.0	19+	+0.6	2	0	1	4.4	79	7	+95	1	2	0	0	0	0.8	30	9.4	W	2	9	11	11	5.4	
RED BLUFF	104	1011.2	1024.2	15.6	1.2	8.4	1.1	25.6	30	+4.4	2	0	2	0.6	65	4	+1	0	1	0	0	0	2.3	35	12.5	NW	18	0	9	12	4.7	33
SACRAMENTO	5	1023.0	1023.8	15.3	1.6	8.4	1.2	21.1	31+	-3	2	0	1	3.1	72	8	+85	1	4	0	0	0	0.7	34	8.5	N	18	9	12	9	5.5	84
SANDBERG R	1377									+55	0	0	0								0	0			17.0	W	12					
SAN DIEGO	4	1018.6	1019.5	21.1	8.8	14.9	2.1	30.6	16	6.1	2	0	0	2.1	68	T	+48	T	0	0	0	0	1.8	31	9.8	S	24	17	9	4	3.4	87
SAN FRANCISCO	2	1022.7	1023.5	14.9	3.4	9.2	0.1	21.7	30	+3.0	2	0	1	3.9	70	9	+102	4	3	0	0	0	0.4	31	8.9	W	24	9	9	13	5.8	
SAN FRANCISCO Ø	16			15.7	8.0	11.9	1.4	22.8	31	2.4	2	0	0			8	+107	7	2													
SANTA MARIA	72			21.4	1.4	11.4	1.1	30.1	29	-6.1	2	0	12			T	+57	1	1		0	0						10	9	11	3.4	
STOCKTON	7	1022.7	1023.7	15.0	-0.5	7.3	0.3	21.7	31	-6.1	2	0	20	1.1	72	4	+70	4	1	0	0	0	0.7	34	9.4	W	24	10	7	14	5.3	
COLORADO																																
ALAMOSA	2297	773.1		0.3	-20.6	-10.1	-1.9	7.2	16	-28.3	2	0	31			1	-5	1	1		24	85						24	10	7	4.4	

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1976

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days sunrise to sunset: Clear 0-3	No. of days sunrise to sunset: Partly cloudy 4-7	No. of days sunrise to sunset: Cloudy 8-10	Sky cover, tenths: sunrise to sunset	Possible sunshine
COLORADO	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
COLORADO SPRINGS	1473	841.0	1021.7	6.8	-8.9	-1.1	0.8	17.8	29	-20.6	7	0	31	-12.8	66	8		6	4	0	175	762	1.7	2	19.7	36	30	14	11	6	4.5	
DENVER	1610	837.1	1019.8	7.9	-7.6	0.2	1.5	19.9	29	-20.0	3	0	30	-9.4	55	5	-11	8	5	0	81	102	0.8	21	28.7	34	30	11	9	11	5.4	72
GRAND JUNCTION	1476	858.5	1029.3	1.0	-12.4	-5.7	-2.7	8.9	29	-23.3	2	0	31	-11.1	69	3	-13	2	3	0	43	102	1.0	4	24.1	NE	30	10	8	13	5.6	68
PUEBLO	1428	856.8	1021.3	9.4	-10.7	-0.6	0.4	22.8	29	-21.1	8	0	31	-9.4	62	4	-14	3	3	0	71	51	1.8	35	28.2	N	30	14	9	8	5.1	64
CONNECTICUT																																
BRIDGEPORT	2	1018.0	1018.5	1.5	-7.2	-2.8	-1.8	10.6	28	-17.8	23	0	29	-7.2	73	141	72	55	15	0	312	152	2.9	32	15.6	NW	22+	12	4	15	6.7	
HARTFORD	52	1011.2	1018.0	-2.4	-11.6	-6.9	-2.9	8.9	27	-22.8	19	0	30	-12.8	63	141	58	51	16	0	348	229	2.1	3	19.8	NW	22	8	7	16	4.4	58
DELAWARE																																
WILMINGTON	23	1016.6	1019.7	2.1	-6.9	-2.4	-2.4	15.0	26	-16.1	19	0	28	-7.8	67	107	35	34	12	0	114	51	2.1	30	18.4	29	14	11	5	15	6.0	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1007.8	1019.9	2.5	-7.5	-2.5	-2.6	13.3	27	-18.3	19	0	31	-7.8	69	71	--	54	9	0	41	25	1.9	28	13.0	29	22+	12	6	13	5.7	
WASHINGTON NATIONAL	3	1017.6	1019.9	5.2	-3.9	1.1	-0.9	15.0	27	-11.7	18	0	23	-6.7	59	9	24	54	10	1	T	T	1.9	10	14.8	NW	14	4	7	14	5.5	49
FLORIDA																																
APALACHICOLA U	6	1022.4	1022.8	15.7	3.6	9.7	-2.4	24.4	3	-2.8	19+	0	9	3.9	72	118	46	74	8	4	0	0	1.4	8	11.2	NW	10	14	8	9	4.5	77
DAYTONA BEACH	9	1020.3	1021.8	19.1	5.7	12.4	-2.2	28.9	25	-2.2	18	0	5	7.2	74	15	-37	8	4	1	0	0	1.4	31	12.5	26	17	16	6	9	4.7	
FORT MYERS	5	1021.3	1021.7	22.4	9.7	16.1	-1.4	28.3	26	2.2	19	0	0	9.4	59	6	-46	6	3	1	0	0	1.3	2	13.4	30	17	18	14	9	4.3	
JACKSONVILLE	8	1021.3	1022.3	16.6	1.4	9.3	-3.3	25.0	25	-4.4	18+	0	15	3.9	74	58	-18	21	6	2	0	0	1.3	31	19.2	SW	8	14	7	11	4.6	66
KEY WEST	1	1019.6	1020.5	22.7	17.1	19.9	-1.6	26.7	27+	11.1	19	0	0	13.9	71	25	-41	8	5	0	0	0	3.7	5	14.3	NW	17	13	10	8	4.7	83
LAKELAND U	65			20.5	7.7	14.1	-1.9	28.3	26	-1.7	18	0	3			17	-42	11	7	0	0	0						15	9	7	4.3	81
MIAMI	2	1021.0	1021.2	22.8	13.5	18.2	-1.4	28.9	8	4.4	18	0	0	12.8	70	24	-31	14	5	0	0	0	1.3	1	11.2	28	17+	14	13	7	4.6	
ORLANDO/MCCOY AFB	29	1018.6	1022.3	20.7	6.5	13.6	-2.1	28.9	26	-1.1	18	0	3	7.2	69	9	-49	4	4	0	0	0	1.4	33	12.5	29	17	14	10	7	4.3	
PENSACOLA	34	1019.7	1023.3	17.0	5.1	11.1	-0.1	23.9	13	-4.4	9	0	6	2.8	61	155	44	90	5	2	0	0	1.4	1	13.4	32	8	13	6	12	4.8	
TALLAHASSEE	17	1018.7	1023.1	16.7	0.3	8.6	-2.9	23.9	3	-9.4	19	0	19	1.7	69	14	-45	45	8	2	0	0	0.9	35	9.6	18	26+	13	7	11	4.6	
TAMPA	6	1022.0	1021....	20.6	6.7	13.7	-2.1	28.3	25	-2.2	19	0	4	7.2	68	10	-49	8	4	1	0	0	1.4	2	12.1	33	17	13	8	10	4.7	72
WEST PALM BEACH	6	1020.7	1021.3	22.4	11.1	16.8	-1.8	27.2	8	2.2	18	0	0	11.1	70	28	-38	14	8	1	0	0	0.7	1	14.8	31	8	12	11	8	4.9	
GEORGIA																																
ATHENS	244	991.5	1021.3	10.3	-1.7	4.3	-2.1	18.9	25	-11.1	9	0	22	-2.8	65	109	-18	64	9	1	58	51	1.6	28	8.9	29	30+	13	7	11	4.6	
ATLANTA	309	986.1	1022.0	9.7	-2.5	3.6	-2.2	18.9	31+	-12.8	9	0	24	-4.4	59	131	21	49	8	1	T	T	1.9	31	13.0	N	30	13	5	13	5.1	61
AUGUSTA	41	1016.6	1021.8	13.6	-1.9	5.9	-1.8	22.2	26+	-11.1	19	0	23	-0.6	66	89	2	46	9	1	T	0	1.4	26	9.8	32	14	16	2	13	4.7	
COLUMBUS	117	1008.5		12.8	-0.6	6.2	-2.1	19.4	30+	-8.9	9	0	21	-1.1	65	92	-18	54	9	1	T	0	1.1	32	10.3	NW	25	13	6	12	5.0	
MACON	109	1009.1	1022.5	13.6	-0.8	6.4	-2.4	21.1	31+	-11.1	19	0	20	-1.1	64	94	1	65	8	1	T	0	1.4	30	10.7	NW	17+	15	5	11	4.6	65
ROME	194			8.7	-3.6	2.6	-2.5	17.8	25	-13.3	9	0	24			114	-13	57	8		T	0											
SAVANNAH	14	1020.3	1022.2	14.7	0.7	7.7	-2.2	23.9	26	-6.7	19	0	15	0.6	66	56	-19	25	8	2	T	0	1.5	29	11.6	N	30+	15	2	14	4.9	69
HAWAII																																
HILO	8	1014.2	1015.3	25.9	17.7	21.8	0.1	28.9	31	15.6	26+	0	0	17.8	81	397	166	85	22	0	0	0	0.9	18	9.4	NW	10	4	7	15	6.4	43
HONOLULU	2	1014.2	1014.7	27.3	19.0	23.2	0.8	28.9	14+	15.6	18	0	0	17.8	74	33	-79	19	8	0	0	0	2.4	6	12.1	NE	16	10	13	8	5.5	61
KAHULUI	15	1013.9	1014.3	26.4	17.0	21.7	-0.3	28.9	4	12.8	20	0	0			71	-61	45	11	0	0	0	3.0	5	13.4	E	7	16	7	8	4.0	69
LIHUE	31	1010.2	1015.5	25.8	20.7	23.3	1.5	27.2	26+	16.7	19	0	0	18.3	74	90	-68	41	16	0	0	0	2.1	8	11.2	S	30	4	19	8	5.9	54
IDAHO																																
BOISE	865	923.8	1027.4	3.8	-3.6	0.1	1.8	11.1	15	-10.0	1	0	29	-3.9	77	38	1	16	11	0	160	25	1.1	12	14.8	N	5	6	6	19	7.2	51
LEWISTON	431			6.6	-1.0	2.8	3.2	13.9	28	-9.4	1	0	21			14	-19	3	9		56	T			23.2Y			11	5	4	24	7.9	
POCATELLO	1358	868.6	1027.1	1.1	-6.8	-2.8	2.1	8.3	29	-15.0	2	0	30	-6.7	75	11	-15	5	9	0	114	51	2.4	22	15.2	SW	12	2	6	23	8.3	34
ILLINOIS																																
CAIRO U	96			5.9	-2.8	1.6	-0.8	18.3	13	-15.0	8	0	22			59	-42	31	16		56	25			22.4	SW	13					56
CHICAGO O HARE	201	993.2	1018.8	-1.7	-11.8	-6.7	-1.7	3.9	29+	-22.8	8	0	30	-10.6	72	22	-22	6	12	0	254	127	2.8	25	13.0	18	18	4	6	16	6.1	
CHICAGO MIDWAY	185	995.9	1019.7	-2.1	-11.9	-6.7	-2.4	3.3	2	-22.8	8	0	31	-11.1	72	34	-13	13	13	0	396	203	2.8	25	14.6	S	19+	9	9	13	5.9	49
MOLINE	177	997.6	1020.3	-1.3	-13.1	-7.2	-1.3	6.1	23	-24.4	27	0	31	-12.8	62	22	-20	6	10	0	218	76	2.6	26	12.5	NW	21	11	7	13	5.6	63
PEORIA	199	995.6	1020.6	-1.7	-12.2	-6.9	-2.4	7.8	23	-24.4	8	0	31	-10.6	74	20	-26	4	8	1	218	102	2.1	25	13.0	N	3	10	9	12	5.5	59
ROCKFORD	221	991.2	1019.7	-3.1	-14.3	-8.6	-2.1	3.3	28	-25.6	8	0	31	-12.8	73	15	-36	4	14	0	168	127	1.9	26	12.1	17	15+	9	7	15	5.9	
SPRINGFIELD	179	998.3	1021.3	0.2	-9.6	-4.7	-1.8	11.7	29	-21.7	8	0	31	-8.3	75	25	-20	12	6	0	218	76	2.2	25	13.4	NW	22	10	7	14	5.7	52
INDIANA																																
EVANSVILLE	116	1007.1	1021.9	3.2	-6.2	-1.5	-1.8	15.6	13	-18.3	9+	0	29	-5.0	75	54	-33	29	8	1	74	25	1.3	27	20.6	N	13	8	8	15	6.4	54
FORT WAYNE	241	988.2	1019.3	-1.7	-9.9	-5.8	-2.1	3.3	25	-18.9	9	0	31	-10.0	73	46	-17	22	9	0	160	76	3.0	25	13.4	SW	19+	7	5	19	7.2	49

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1976

State and Station	Elevation ground	Pressure: Station O	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days Max 32.2 °C or above	Temperature: No of days Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days 25 mm or more	Precipitation: No of days With thunderstorms	Precipitation: Snow, Ice pellets Total	Precipitation: Snow, Ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No. of days (sunrise to sunset) Clear, 0.3	No. of days (sunrise to sunset) Partly cloudy 4-7	No. of days (sunrise to sunset) Cloudy 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
INDIANA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
INDIANAPOLIS	241	990.5	1020.8	0.1	-9.1	-4.5	-2.2	8.9	25	-20.0	8	0	31	-7.2	81	58	-14	22	10	1	146	76	7.2	26	13.4	NW	21	6	8	17	7.1	44
SOUTH BEND	236	989.2	1018.5	-1.3	-10.3	-5.8	-1.3	4.4	2	-21.1	17	0	31	-8.3	80	56	-4	14	19	1	96	381	2.7	25	11.2	35	21	3	9	21	8.2	
IOWA																																
BURLINGTON	211			-0.6	-11.7	-6.1	-1.1	8.9	23	-23.3	8	0	31	-11.1	68	24	-17	12	6	0	200	127	2.2	28	11.6	31	3	14	3	14	5.3	
DES MOINES	286	984.4	1020.7	1.2	-11.4	-5.1	1.9	13.3	23	-23.3	8	0	31	-11.7	62	6	-23	5	2	0	61	51	2.5	29	15.6	NW	15	9	11	11	5.5	62
DUBUQUE	322			-3.1	-14.3	-8.7	-0.7	6.1	12	-27.8	8	0	31			14	-29	8	7		157	102										
SIOUX CITY	334	979.3	1021.2	0.1	-12.2	-6.1	1.7	13.9	29	-25.0	7	0	31	-11.7	67	4	-13	3	4	0	20	T	2.5	30	17.0	NW	15	9	12	10	5.6	65
WATERLOO	265	986.8	1020.2	-2.0	-15.2	-8.6	0.2	8.9	28	-25.6	8	0	31	-14.4	61	5	-21	2	4	0	43	25	2.0	30	11.6	29	20	9	8	14	6.1	
KANSAS																																
CONCORDIA	448	966.8	1021.6	4.9	-8.6	-1.8	1.3	17.2	29	-22.2	7	0	31	-8.9	61	4	-12	2	3	0	76	51	1.4	28	13.4	NW	7	12	11	8	4.5	84
DODGE CITY	787	927.9	1021.3	8.7	-7.7	0.5	1.2	20.6	23	-22.8	8	0	30	-9.4	54	1	-.2	1	1	0	15	25	2.2	30	18.8	NE	19	13	11	7	4.5	78
GOODLAND	1114	889.9	1020.7	7.8	-7.1	0.3	2.8	20.6	29	-20.0	7	0	27	-7.8	62	12	3	6	5	0	196	76	3.1	29	15.6	33	13	11	9	11	5.1	
TOPEKA	267	989.2	1022.3	3.9	-8.6	-2.3	-0.1	15.0	22	-21.7	8	0	31	-7.8	69	10	-14	5	5	0	165	102	1.5	26	13.9	NW	15	14	7	10	4.6	70
WICHITA	403	972.6	1022.1	7.5	-7.5	0.0	0.4	18.3	23	-20.6	8	0	31	-7.8	59	1	-21	1	2	0	15	25	1.0	31	15.6	N	7	16	7	8	4.1	67
KENTUCKY																																
COVINGTON	265	987.5	1020.5	2.3	-7.7	-2.7	-2.2	14.4	13	-18.9	9+	0	31	-6.7	73	76	-9	24	12	1	203	76	2.2	25	20.6	28	13	7	4	20	7.2	
LEXINGTON	294	984.8	1021.5	3.1	-7.1	-2.0	-2.5	13.9	25	-20.6	9	0	29	-5.6	74	91	-9	23	11	0	165	76	2.1	28	17.9	28	13	3	9	20	7.5	
LOUISVILLE	145	1002.7	1021.1	4.7	-5.5	-0.4	-1.1	16.7	23	-16.1	9	0	28	-5.6	69	98	8	36	11	1	64	25	1.9	26	18.3	N	13	5	10	16	6.6	57
LOUISIANA																																
ALEXANDRIA	28	1019.0	1023.3	14.8	1.3	8.1	-0.7	24.4	13	-8.3	9	0	18	2.2	70	81	-38	37	8	2	0	0	1.2	1	10.3	34	31	11	5	15	5.6	
BATON ROUGE	20	1020.7	1023.5	15.9	2.5	9.2	-1.3	23.3	13	-7.8	9	0	14	3.9	72	94	-17	34	7	2	T	0	0.4	6	10.3	31	10	13	4	14	5.3	
LAKE CHARLES	3	1022.1	1023.1	16.3	3.6	9.9	-1.3	23.9	24	-5.6	8	0	7	5.0	76	52	-50	41	7	2	T	T	0.6	10	12.5	32	34	11	4	16	5.9	
NEW ORLEANS	1	1022.4	1023.2	16.4	4.2	10.3	-1.3	23.3	13	-3.9	10	0	7	6.1	77	66	-49	40	9	2	0	0	0.6	4	10.7	14	25	12	5	14	5.3	62
SHREVEPORT	77	1013.2	1022.8	16.1	0.7	8.4	-0.1	25.6	30	-9.4	8	0	15	0.6	63	53	-50	27	8	2	0	0	0.6	25	10.3	32	25	12	8	11	5.1	67
MAINE																																
CARIBOU	190	990.2		-8.7	-21.0	-14.8	-3.0	7.2	27	-35.6	13	0	31			89	37	36	16		765	610						10	4	17	4.1	
PORTLAND	13	1014.2	1016.5	-3.3	-14.8	-9.1	-3.2	7.2	14	-28.9	11	0	31	-13.9	67	113	27	31	13	0	460	381	2.6	31	17.9	W	14	10	6	15	6.0	56
MARYLAND																																
BALTIMORE	45	1014.2	1020.1	3.6	-4.9	-0.7	-1.4	15.6	26	-15.0	19	0	29	-6.7	66	104	30	79	12	0	43	25	2.1	3	18.8	N	14	13	3	15	5.4	54
MASSACHUSETTS																																
BLUE HILL OBS R	192			-0.7	-10.5	-5.6	-2.3	12.2	27	-23.3	23	0	30			166	51	42	15		439	356			26.6	NW	14					48
BOSTON	5	1016.3	1017.3	1.2	-7.7	-3.3	-1.7	13.3	28	-20.0	23	0	29			134	41	35	16	0	384	279	3.4	29	19.7	S	14	9	8	14	4.1	52
WORCESTER	301	978.0		-2.0	-12.2	-7.1	-2.4	11.7	27	-25.0	23	0	30			153	66	42	17	0	549	406	3.1	29	17.0	W	22	8	8	15	4.4	
MICHIGAN																																
ALPENA	210	990.2	1016.8	-5.3	-16.3	-10.8	-2.9	1.7	2	-27.8	18	0	31	-11.7	67	44	2	9	18	0	871	610	1.4	30	11.6	NW	16	4	6	23	8.0	54
DETROIT	189			-1.6	-8.9	-5.2	-1.6	7.2	26	-18.9	18	0	31	-9.4	72					0	246	178	2.6	24	16.6	28	28					
DETROIT METRO	193	993.2	1018.5	-2.2	-12.1	-7.1	-3.0	7.8	26	-27.8	18	0	31	-10.6	75	49		16	15	0	384	254	2.9	30	15.6	N	3	3	0	21	7.8	54
FLINT	235	988.5	1017.5	-2.8	-12.7	-7.7	-2.3	2.8	2	-31.7	18	0	31	-10.6	74	39	-4	13	16	0	734	381	2.4	24	19.3	31	29	4	4	23	8.0	
GRAND RAPIDS	239	987.5	1017.8	-2.5	-12.1	-7.3	-2.4	3.3	2	-25.0	18	0	31	-10.0	77	42	-7	8	18	0	630	381	2.1	24	14.3	SW	2	6	0	25	8.2	41
HOUGHTON LAKE	350	972.0	1016.7	-5.1	-14.9	-10.0	-1.9	1.7	2	-26.7	17	0	31	-12.8	77	45	6	16	20	0	756	406	1.3	26	11.6	27	14	6	0	25	8.0	
LANSING	256	984.4	1017.7	-2.6	-13.4	-8.1	-2.9	3.3	2	-31.7	18	0	31	-11.5	78	40	-4	15	20	0	507	330	2.4	25	13.9	SW	20	6	3	24	8.2	67
MARQUETTE CO	206			-5.7	-12.6	-9.1	-1.6	1.7	2	-21.1	8	0	31			67	24	11	25		1.58	584			16.8	SW	20	3	8	20	8.1	53
MUSKEGON	191	993.9	1017.6	-1.2	-8.2	-4.7	-0.2	4.4	2	-15.0	18	0	31	-8.9	74	44	3	9	22	0	812	406	1.6	27	15.6	33	21	2	4	25	9.3	
SAULT STE MARIE	220	988.2	1016.1	-7.1	-16.9	-12.0	-2.1	0.3	2	-28.9	1	0	31	-15.0	76	57	8	11	24	0	1026	584	0.2	5	14.5	NW	14	2	1	26	8.2	52
MINNESOTA																																
DULUTH	435	963.1	1017.5	-10.2	-20.2	-15.2	-2.1	1.7	28	-34.4			31	-18.9	71	40	1	19	18	0	582	508	2.1	28	13.4	NW	28	7	4	20	7.1	54
INTERNATIONAL FALLS	359	971.9	1018.6	-11.2	-24.7	-18.0	-1.3	0.3	28	-37.2			31	-21.1	71	25	4	7	19	0	544	533	2.1	31	11.6	31	27	4	2	25	7.6	
MINNEAPOLIS	254	987.1	1019.3	-5.7	-16.9	-11.3	-0.3	5.6	28	-30.8	1	0	31	-13.1	65	22	4	8	9	0	312	279	1.9	28	15.6	NW	28	7	6	18	6.8	61
ROCHESTER	395	968.5	1019.6	-4.5	-16.9	-10.7	-0.1	4.4	28	-30.8	1	0	31	-14.4	72	20	7	9	7	0	188	127	0.7	8	13.4	35	30	4	2	25	7.7	
ST CLOUD	313	980.0	1019.9	-7.8	-21.3	-14.5	-1.7	3.9	28	-33.3	27	0	31			22	1	8	6		439	432						1	0	18	7.4	
MISSISSIPPI																																
JACKSON	94	1011.2	1023.3	13.7	-0.1	6.8	-1.6	22.8	30	-9.4	9	0	19	1.7	74	92	-28	32	8	3	T	T	0.1	32	26.5	NW	13	14	4	13	6.8	54

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days sunrise to sunset: Clear 0-3	No. of days sunrise to sunset: Partly cloudy 4-7	No. of days sunrise to sunset: Cloudy 8-10	Sky cover tenths sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							
MISSISSIPPI																																
MERIDIAN	88	1012.2	1027.6	19.6	-1.8	5.9	-2.4	21.1	30	-10.0	9	0	24	-2.6	77	76	-34	40	8	2	0	0	3.4	26	13.3	17	25	4	6	21	4.7	
MISSOURI																																
COLUMBIA REGIONAL	270	986.2	1021.8	3.1	-6.9	-1.9	-3.4	16.1	29	-21.1	8	0	29	-8.3	65	24	-16	12	6	0	160	51	1.6	26	13.0	NW	16	12	8	11	5.9	67
KANSAS CITY	309	983.1	1021.4	4.7	-7.7	-2.5	-3.2	13.9	28	-22.2	8	0	30	-9.4	61	13	-18	7	6	0	136	76	1.5	27	13.4	NW	15	16	6	9	4.5	61
ST JOSEPH	247			2.9	-7.8	-2.4	-0.8	15.6	28	-20.0	7	0	30			10	-17	5	4		152	102										
ST LOUIS	169	1000.7	1022.2	3.1	-7.6	-2.2	-1.8	19.4	28	-21.7	8	0	30	-6.1	74	21	-26	14	6	0	134	102	1.9	27	13.4	W	19	24	6	11	4.9	61
SPRINGFIELD	386	974.6	1021.6	6.4	-5.8	0.3	-0.2	16.7	28	-18.9	8	0	28	-6.1	65	13	-29	6	5	0	30	*	1.2	23	13.0	S	19+	16	6	9	3.9	59
MONTANA																																
BILLINGS	1087	893.0	1021.3	1.7	-7.8	-3.1	2.6	14.4	29	-26.1	7	0	25	-10.6	57	15	-3	12	6	0	150	178	5.0	25	18.8	W	1+	3	11	17	7.4	49
GLASGOW	696	935.0	1020.9	-4.3	-16.0	-10.1	2.6	9.4	27	-34.4	8	0	31	-13.9	71	7	-3	6	4	0	69	76	1.2	32	14.8	31	23	4	12	15	6.8	
GREAT FALLS	1116	889.6	1021.8	2.3	-8.6	-3.1	3.3	14.4	31	-26.7	7+	0	23	-10.0	63	14	-8	5	11	0	155	76	5.8	13	21.4	SW	27	3	4	24	8.2	41
HAVRE	788	924.8	1020.4	0.8	-11.4	-5.3	0.2	13.3	31	-31.7	7	0	27	-10.6	67	5	-8	2	6	0	10	102	3.4	25	17.9	W	27	3	10	18	7.4	49
HELENA	1167	883.8	1024.2	1.3	-9.2	-3.9	3.8	12.2	29+	-21.7	7+	0	29	-10.0	64	7	-7	2	10	0	84	25	2.1	26	18.8	SW	11	3	5	23	P...	42
KALISPELL	904	915.7	1023.4	0.8	-9.6	-4.4	2.8	8.3	27+	-23.3	1	0	30	-8.3	73	35	-4	6	14	0	404	279	1.6	31	11.3	10	11+	1	8	22	4.5	
MILES CITY	801	923.8	1021.1	-2.0	-12.9	-7.4	1.8	7.8	27	-32.2	8	0	30	-10.3	79	4	-7	2	7	0	28		2.5	25								
MISSOULA	972	909.2	1025.0	1.9	-6.4	-2.2	4.0	10.6	27	-17.2	1	0	28	-3.9	88	23	-7	7	12	0	226	102	1.4	29	13.9	N	11	3	4	20	8.5	24
NEBRASKA																																
GRAND ISLAND	561	952.6	1022.6	1.8	-10.2	-4.2	1.2	13.3	22	-25.0	7	0	31	-9.4	69	10	-3	6	4	0	91	76	2.6	29	15.6	36	6	15	7	9	4.5	
LINCOLN	359	977.0	1021.5	2.8	-11.4	-4.3	1.2	16.1	28	-23.9	7	0	31	-10.0	66	9	-7	5	4	0	99	51	2.0	30	16.5	NW	15	13	7	11	4.8	65
NORFOLK	471			-0.8	-10.9	-5.8	1.4	8.9	29	-26.1	7	0	31			7	-8	5	3		76	51						9	10	12	5.4	
NORTH PLATTE	848	920.1	1022.6	-0.7	-15.1	-7.9	-3.1	10.0	22	-29.4	4+	0	31			25	14	15	6	0	434	305	2.0	31	15.6	N	6	7	12	12	5.7	67
OMAHA	298	984.1	1020.9	3.3	-10.6	-3.6	1.6	15.6	23	-23.9	7	0	31	-9.4	64	3	-17	1	4	0	46	25	1.8	31	15.2	NW	14+	11	9	11	5.8	71
SCOTTSBLUFF	1206	881.1	1022.2	2.5	-10.2	-3.8	0.1	13.3	29	-26.1	26	0	29	-10.0	67	24	16	23	4	0	305	381	3.2	30	14.3	28	15+	6	10	15	6.6	
VALENTINE	789			0.8	-12.7	-5.9	0.6	14.4	29	-28.9	8	0	31			7	-1	7	1		147	152			18.3	NW	6	7	12	12	5.9	68
NEVADA																																
ELKO	1538	850.7	1027.7	3.4	-10.3	-3.4	1.4	11.1	30	-18.3	2	0	31	-8.3	74	9	-21	6	8	0	112	51	0.2	25	10.3	25	5	11	3	17	6.1	
ELY	1906	813.1	1026.1	5.9	-12.3	-3.2	1.5	15.6	29	-22.8	2	0	31	-8.9	71	10	-7	4	5	0	150	76	1.3	21	12.5	W	12	8	12	11	6.1	72
LAS VEGAS	659	945.5	1023.5	16.2	0.4	8.3	1.5	22.8	16	-7.2	2	0	14	-10.0	30	2	-11	0	0	0	0	0	1.5	28	13.4	NW	24	20	9	2	2.8	95
RENO	1342	872.3	1026.8	9.6	-9.6	0.1	0.1	15.6	28	-16.1	2	0	31	-7.2	65	4	-27	4	2	0	8	7	0.1	29	13.0	W	5	7	6	18	6.7	68
WINNEMUCCA	1311	875.0	1026.5	8.5	-7.9	0.6	2.7	17.2	28	-16.1	2	0	31	-7.8	59	10	-14	5	5	0	76	51	0.7	18	10.7	SW	5	7	7	17	6.4	66
NEW HAMPSHIRE																																
CONCORD	104	1004.1	1017.3	-5.0	-18.5	-11.7	-5.4	7.8	14	-34.4	19	0	31	-16.1	68	86	-9	36	14	0	379	406	2.1	30	13.9	NW	29	10	6	15	6.2	43
MT WASHINGTON OBS	1909			-10.7	-22.0	-16.3	-1.7	3.9	27	-42.2	22	0	31			301	171	72	24	1	1681	381			58.1Y	NW	28	4	5	22	7.5	27
NEW JERSEY																																
ATLANTIC CITY	20	1016.9	1019.3	2.9	-6.9	-2.0	-2.4	15.6	26	-17.2	19	0	29	-7.2	69	115	24	36	14	0	124	51	2.0	28	12.5	30	22+	10	5	16	6.1	69
ATLANTIC CITY U	3			3.8	-3.1	0.4	-1.2	12.2	27	-12.2	19	0	25			93	7	29	14							15.6	NE	1					
NEWARK	2	1017.6	1018.8	1.4	-7.3	-2.9	-2.6	13.9	26	-18.3	23	0	29	-7.8	69	128	54	47	14	0	183	102	2.5	30	12.1	29	23	9	6	16	6.3	
TRENTON U	17			2.2	-5.9	-1.8	-1.9	18.9	26	-16.1	23	0	28			103	33	43	12		142	51			17.4	SW	14	8	11	12	5.9	57
NEW MEXICO																																
ALBUQUERQUE	1619	841.5	1023.4	8.6	-7.3	0.7	-1.1	16.7	30	-16.1	2	0	31	-9.4	51	0	-8	0	0	0	0	0	1.2	36	14.8	E	19	13	12	6	3.6	88
CLAYTON	1515			9.8	27.0	1.4	0.8	20.6	29	-16.7	7	0	31			3	-5	3	1	0	38	51										
ROSWELL	1112	893.7	1020.9	13.3	-4.1	4.7	1.3	21.1	15	-11.7	3	0	25	-7.2	47	3	-7	3	2	0	30	25	0.4	28	19.7	NE	30	13	15	3	3.6	79
NEW YORK																																
ALBANY	84	1007.8	1019.1	-2.7	-10.1	-8.9	-3.1	11.7	27	-26.7	19+	0	30	-12.8	72	96	40	36	15	0	381	356	1.8	28	15.2	W	14	5	9	17	6.9	52
BINGHAMTON	485	956.7	1018.2	-3.4	-13.4	-8.4	-2.8	10.6	27+	-25.0	23	0	31	-12.2	75	94	35	33	22	0	754	330	2.1	26	15.2	W	14	3	10	18	7.6	46
BUFFALO	215	990.9	1017.6	-2.7	-10.9	-6.8	-2.2	9.4	26	-23.9	23	0	31	-9.4	81	81	7	18	19	0	549	381	2.6	25	14.3	W	14	0	8	23	8.5	33
NEW YORK J	40	1015.2	1018.5	1.2	-6.4	-2.6	-2.7	13.3	27	-18.3	23	0	30			147	78	57	13	0	142	51	1.9	34	13.4	NW	22					48
NEW YORK KENNEDY	4	1018.0	1018.8	1.4	-5.8	-2.2	-1.8	10.6	26	-16.7	23	0	29	-7.8	66	116	47	41	14	0	175	51	3.3	31	16.1	28	14	10	8	13	6.0	
NEW YORK LA GUARDIA	3	1018.0	1019.0	1.7	-5.3	-1.8	-1.8	12.2	14	-16.1	23	0	29	-8.9	60	138	65	55	14	0	155	76	3.0	30	17.9	SW	14	10	9	12	6.1	
ROCHESTER	167	997.0	1018.2	-2.1	-11.4	-6.8	-2.3	9.4	26	-25.6	23	0	30	-10.6	76	59	2	13	23	0	759	254	2.5	25	15.6	W	14	0	9	22	8.5	35
SYRACUSE	125	1002.7	1018.4	-2.3	-13.1	-7.7	-3.1	10.6	26	-27.8	23	0	31	-11.7	73	71	3	21	20	0	909	356	1.3	26	20.1	W	14	2	7	22	8.1	40
NORTH CAROLINA																																
ASHEVILLE	652	942.1	1020.6	7.3	-5.5	0.9	-2.4	13.3	25+	-16.7	19	0	29	-3.3	76	89	3	59	7	0	41	25	2.3	1	13.4	34	14	15	6	10	4.7	62

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days Max 32.2 °C or above	Temperature: No. of days Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days 25 mm or more	Precipitation: No. of days With thunderstorms	Precipitation: Snow, Ice pellets Total	Precipitation: Snow, Ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No. of days sunrise to sunset: Clear 0.3	No. of days sunrise to sunset: Partly cloudy 4.7	No. of days sunrise to sunset: Cloudy 8.10	Sky cover tenths sunrise to sunset	Possible sunshine
NORTH CAROLINA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
CAPE HATTERAS R	2	1020.7	1020.9	11.5	1.5	6.5	-0.9	20.6	27+	-6.1	20	0	18	2.2	73	82	+26	45	10	0	T	T	11.4	31	12.5	36	17	17	3	11	4.7	48
CHARLOTTE	224	992.9	1021.1	10.0	-1.9	4.1	-1.6	20.0	26+	-11.1	19	0	22	+3.9	60	48	+41	23	9	0	T	T	9.8	25	19.3	5	16	14	8	9	4.7	71
GREENSBORO	273	988.2	1020.7	8.2	-3.8	2.2	-1.6	18.9	26+	-13.9	19	0	25	-3.9	67	57	+25	26	10	0	T	T	11.8	25	19.9	n	31	12	7	12	5.1	57
RALEIGH	132	1004.4	1020.7	9.6	-3.4	3.1	-1.6	20.0	25	-15.0	19	0	23	-4.4	60	78	-4	34	9	4	16	T	11.4	26	11.2	30	27	11	11	9	4.8	61
WILMINGTON	9	1020.0	1021.4	13.9	0.6	7.3	-0.7	22.8	27+	-8.3	19	0	16	1.1	67	74	+6	42	11	0	T	0	11.0	26	13.0	4	17	16	5	10	4.5	59
NORTH DAKOTA																																
BISMARCK	502	957.0	1020.6	-5.1	-17.3	-11.2	2.1	6.1	29	-33.9	4	0	31	-13.9	76	13	0	15	7	0	135	178	9.0	36	16.5	NW	19	8	11	12	5.9	55
FARGO	273	984.8	1019.7	-8.2	-18.8	-13.5	1.0	2.2	29	-31.1	7	0	31	-17.2	73	32	19	15	8	0	356	229	1.3	29	17.9	N	26	5	6	20	7.6	43
WILLISTON	579	948.2	1020.5	-5.6	-17.9	-11.8	1.4	6.1	31	-35.0	8	0	31	-14.4	80	15	0	12	9	0	262	406	3.1	28	16.1	NW	18	5	11	15	6.4	52
OHIO																																
AKRON	368	972.9	1019.1	-0.2	-9.8	-5.0	-1.8	10.6	26	-20.6	9	0	31	-9.4	73	80	12	16	16	1	638	229	2.5	26	13.4	21	13	1	4	26	6.9	
CINCINNATI ABBE DB	232			2.4	-6.9	-2.2	-2.3	13.3	13	-18.3	9	0	31			78	+8	23	11							16.5	SW	13					29
CLEVELAND	237	988.8	1019.2	-1.8	-9.8	-5.8	-2.9	8.3	26	-18.3	9	0	31	-8.9	79	86	21	15	21	0	546	229	2.8	24	13.0	n	3	1	6	26	8.2	18
COLUMBUS	247	989.2	1020.4	-0.5	-8.4	-4.4	-2.4	9.4	26	-20.0	9	0	31	-8.3	73	80	7	19	14	1	315	76	2.1	24	17.9	SW	13	5	4	22	8.1	36
DAYTON	303	982.4	1020.1	0.2	-9.0	-4.4	-2.2	10.6	26+	-20.6	9+	0	31	-8.3	74	76	6	28	14	1	295	102	2.1	24	20.1	SW	13	5	5	21	7.5	40
MANSFIELD	395			-1.7	-10.8	-6.2	-4.0	8.9	26	-21.1	9	0	31			68	9	26	15	1	356	102	3.1	22	12.5	18	18	6	7	25	8.4	
TOLEDO	204	992.9	1019.1	-2.6	-11.0	-6.8	-2.8	6.1	26	-23.9	18	0	31	-10.0	77	71	18	28	17	0	368	152	2.3	24	14.3	n	3	3	5	23	8.0	34
YOUNGSTOWN	359	974.6	1019.1	-2.4	-11.1	-6.7	-3.2	9.4	26	-21.1	18	0	31	-10.0	76	81	7	21	19	0	500	203	2.4	25	13.0	31	14+	1	3	27	8.9	
OKLAHOMA																																
OKLAHOMA CITY	392	974.6	1022.5	11.4	-3.7	3.9	1.2	20.6	23	-16.1	8	0	22	-6.7	51	T	-26	T	0	0	T	T	0.8	34	15.6	N	31	20	6	5	3.0	83
TULSA	198	997.3	1022.3	9.9	-4.2	2.9	0.3	20.6	23+	-17.2	8	0	26	-6.1	57	5	-31	5	1	0	T	T	1.0	25	14.3	S	10	16	11	4	3.5	72
OREGON																																
ASTORIA	2	1022.0	1022.7	10.1	3.3	6.7	1.9	17.2	31	-2.8	24	0	6	3.9	85	296	49	53	21	1	T	0	1.7	17	14.3	18	14	3	6	21	8.2	
BURNS U	1265			3.1	-7.9	-2.4	1.3	10.6	28	-15.0	24	0	31			38	-7	16	7		300	254			17.4Y	W	5	9	5	17	8.7	
EUGENE	109	1010.5	1024.3	9.6	1.5	5.6	1.4	17.2	28	-3.9	2	0	11	3.3	86	249	58	65	14	0	T	0	1.4	17	12.3	18	11	3	5	23	8.2	
MEDFORD	396	977.0	1026.1	8.6	-1.0	3.8	1.2	16.1	19	-7.2	1	0	16	0.0	83	41	+49	14	12	0	43	51	0.3	30	6.3	30	5	4	2	25	8.2	
PRINEVILLE	452	969.5	1024.5	7.6	0.4	4.0	4.0	17.2	16	-7.2	1	0	14	0.0	77	45	4	17	11	0	8	0	1.4	22	12.5	27	11	2	9	20	7.6	
PORTLAND	6	1022.4	1023.7	8.8	2.5	5.7	2.3	14.4	15	-3.3	1	0	9	2.8	83	131	+19	28	14	0	T	0	2.1	16	12.5	n	11	0	5	26	7.9	20
SALEM	60	1016.3	1023.6	8.7	0.9	4.8	1.1	14.4	19+	-6.1	1	0	13	2.8	86	139	+36	32	15	0	0	0	2.1	18	14.5	19	4	4	4	23	8.1	
SEXTON SUMMIT R	1169	888.6	1023.4	7.7	1.6	4.7	3.3	16.7	16	-6.7	1	0	15			45	-121	18	13		178	102	2.8	17	12.5	22	19	6	6	14	7.2	
PACIFIC AREA																																
AGANA/AGANA R	110			28.1	20.9	24.5	+0.7	29.4	5	17.2	30	0	0			518	387	159	25		0	0			10.7	SE	30+	1	15	15	7.6	64
JOHNSTON	2	1011.5	1012.1	26.4	22.3	24.4	+0.5	28.3	30	18.9	5	0	0	20.0	76	163	+7	53	15	2	0	0	5.8	18	9.1	E	7	2	16	6	5.6	56
KWAJ R	29	1004.7		31.4	23.9	27.7	0.4	32.8	5	22.8	21	7	0			194	+76	38	24	2	0	0	3.2	18	13.6	SW	31	1	4	26	8.3	65
MAJURO	2	1007.8		29.1	24.6	26.9	+0.4	30.6	26+	22.2	14	0	0			164	+1	56	15	0	0	0	5.9	18	9.8	W	16	1	16	14	7.1	
NAURU	3	1008.1		28.6	24.0	26.3	+0.8	29.4	31+	22.6	10	0	0			214	+47	85	18		0	0	4.6	18	14.5	E	18	0	0	31	3.0	52
PAGO PAGO	4	1008.8	1009.2	29.6	23.3	26.4	+0.4	31.1	31	20.6	17	0	0	22.8	81	145	-167	50	20	1	0	0	3.5	15	13.6	NE	9	4	5	22	8.5	54
PUNAPE R	37			30.6	24.4	27.6	0.6	32.2	6	22.8	13+	1	0			153	-154	53	18		0	0			9.4	NE	18	2	11	18	8.1	58
TRUK/MOEN ISLAND	6	1007.5		29.7	24.9	27.3	0.1	31.1	3	22.8	28+	0	0			266	26	114	21	1	0	0	4.4	21	12.1	SE	26	0	4	26	5.7	63
WAKE	3	1012.9	1013.3	28.1	22.3	25.2	0.2	29.4	24+	19.4	27	0	0	20.6	80	36	-6	18	14	0	0	0	5.2	8	16.5	NE	18	10	10	9	6.4	69
YAP R	13	1006.4		29.9	22.6	26.2	-0.7	31.1	4	20.6	27+	0	0			167	-27	91	25	1	0	0	3.4	8	12.1	NE	30	2	12	17	7.5	59
PENNSYLVANIA																																
ALLENTOWN	118	1005.1	1019.5	0.2	-8.9	-4.4	-2.1	13.3	27+	-17.8	23	0	30	-6.9	69	124	51	42	14	0	650	76	2.9	31	18.6	31	3	0	7	18	4.4	
ERIE	223	99..9	1020.6	-2..	-10.3	-6.2	-2.3	8.9	26	-20.0	23	0	31	-8.9	79	78	15	14	22	0	630	279	3.2	33	14.3	18	28	0	3	30	9.4	
HARRISBURG	103	1007.1	1020.5	1.1	-5.9	-2.4	-1.4	12.2	27+	-15.8	19	0	29			12	45	49	..	0	0	0	1.9	31	22.4	n	16	2	5	24	5.8	61
PHILADELPHIA	2	1014.6	1019.5	2.2	-5.9	-1.8	-2.0	17.8	26	-14.4	23	0	29	-7.2	68	1.4	43	46	12	0	443	51	0.7	31	15.6	NW	14	0	0	15	5.4	57
PITTSBURGH	347	978.9	1019.5	-0.8	-8.7	-4.7	-2.6	11.7	26	-18.9	9	0	31	-6.0	67	83	12	25	20	0	544	254	3.1	27	16.6	27	10	2	6	23	6.6	44
SCRANTON	283	983.1	1018.7	-1.7	-8.01	-5.5	-2.2	14.4	26	-21.1	23	0	30	-10.6	69	83	31	28	19	0	390	102	1.5	28	14.8	n	14	2	11	18	7.1	49
WILLIAMSPORT	160	999.7	1019.1	-1.5	-8.8	-5.2	-2.5	12.8	27	-20.0	19	0	30	-10.6	67	64	5	32	13	0	290	127	1.3	31	14.3	18	14	2	9	20	7.0	
RHODE ISLAND																																
BLOCK ISLAND	34			1.9	-6.9	-2.5	-2.2	12.2	28+	-17.8	23	0	28			142	25	37	15	0	346	76										
PROVIDENCE	26	1015.6	1017.8	1.7	-10.2	-4.7	-2.7	13.9	27	-25.0	23	0	30	-10.7	66	102	78	44	15	0	346	203	2.5	31	18..	..	16	..	8	18	4.2	48
SOUTH CAROLINA																																
CHARLESTON	12	1021.3	1022.2	14.0	0.1	7.1	-2..	23.3	28	-8.4	19	0	16	-0.6	69	41	-33	26	6	0	0	0	1.3	18	9.8	18	5	5	11	15	4.6	35

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Precipitation						Wind				No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
											No. of days							No. of days		Snow, ice pellets				Fastest mile (1.6 kilometers)							
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32°C or above	Min 0°C or lower	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Resultant speed	Resultant direction	Speed	Direction	Date	Clear 0-3	Partly cloudy 4-7	Cloudy 8-10		
SOUTH CAROLINA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
CHARLESTON O	3			13.9	4.4	9.3	-0.7	22.8	25	-2.8	19	0	6		67	-6	21	10													
COLUMBIA	65	1013.5	1021.6	13.9	-1.2	6.6	-1.1	25.0	28	-12.2	19	0	22	-1.7	66	91	4	47	4		7		12	27	9.8	32	8	10	3	18	4.8	66
GREENVILLE-SPARTNBG	292	985.8	1021.3	9.3	-2.7	3.3	-2.4	18.9	25	-11.1	19	0	23	-3.3	66	124	44	26	4		T	T	11	28	9.8	4	8	15	7	9	4.3	66
SOUTH DAKOTA																																
ABERDEEN	395	970.9	1020.5	-5.6	-16.7	-11.1	1.4	6.1	31	-33.9	4	0	31	-14.4	74	21	7	11	5	1	345	229	2.0	26	13.9	35	5	8	12	11	6.1	
HURON	390	971.2	1021.3	-3.6	-15.9	-9.7	1.1	7.2	29	-32.8	4	0	31	-12.8	79	14	5	9	5		277	243	1.7	3	17.9	NW	14	10	6	15	4.1	71
RAPID CITY	984	905.9	1021.1	1.5	-10.4	-4.5	4.1	14.4	29	-27.8	8	0	31	-11.1	61	7	-5	26	5		5.	178	3.9	33	24.6	NW	5	5	5	17	5.4	63
SIOUX FALLS	437	966.5	1020.6	-3.4	-14.8	-9.1	0.8	5.6	29	-30.0	4	0	31	-12.8	74	20	-4	8	5		255	203	2.3	29	13.9	1	6	10	6	15	5.8	
TENNESSEE																																
BRISTOL	459	965.5	1021.2	6.3	-4.6	0.8	-1.6	17.2	25	-13.3	19+	0	28	-6.1	61	64	-26	19	9	0	13	T	1.7	27	13.0	29	13	9	6	16	6.5	
CHATTANOOGA	208	997.3	1022.7	6.9	-4.0	1.4	-3.1	16.7	23	-13.3	9	0	25	-3.3	73	110	-27	55	11	1	T	T	1.0	33	18.3	22	13	12	5	14	5.6	51
KNOXVILLE	299	985.8	1022.6	6.5	-4.2	1.3	-3.5	18.3	25	-13.9	9	0	26	-3.3	73	99	-21	36	11	0	8	T	1.4	27	15.6	27	13	14	5	12	4.3	48
MEMPHIS	79	1012.5	1023.1	9.7	-1.4	4.2	-0.6	20.6	13	-11.1	8	0	22	-2.8	60	72	-33	29	8	1	8	T	1.9	15	15.6	34	13	15	6	10	4.6	72
NASHVILLE	180	1000.0	1022.3	8.2	-2.9	2.6	-0.9	18.9	24+	-15.6	9	0	25	-2.8	69	104	-16	38	10	1	18	25	1.3	25	18.2	21	13	11	6	14	5.7	53
OAK RIDGE A	276			6.1	-5.4	0.3	-3.1	15.6	25	-17.2	9	0	28			139	6	48	12		56	25			14.8Y		13	9	6	16	6.5	
TEXAS																																
ABILENE	544	958.0	1022.2	13.8	-2.3	5.8	-0.7	25.6	23	-13.9	8	0	24	-4.4	53	1	-25	1	1	0	0	0	1.3	21	18.5	3	31	18	6	7	3.4	81
AMARILLO	1098	893.7	1020.0	11.6	-6.2	2.7	-3.5	21.1	18	-17.2	7	0	29	-10.6	41	T	-14	T	0	0	T	T	2.0	28	15.6	2	31+	16	11	4	3.5	90
AUSTIN	182	1000.3	1022.8	16.8	2.6	9.7	-0.1	25.0	13	-7.8	8	0	9	3.0	55	29	+19	16	3	1	0	0	2.9	34	18.5	NW	31	15	7	9	4.1	67
BROWNSVILLE	6	1021.3	1021.8	20.8	9.2	15.1	-0.7	28.9	25	-1.7	8	0	2	9.4	73	12	-22	8	4	1	0	0	3.1	34	13.4	NW	31+	8	5	18	5.9	47
CORPUS CHRISTI	12	1020.7	1022.3	20.7	6.7	13.7	0.2	27.8	25+	-3.3	8	0	5	7.2	69	4	-36	3	3	0	0	0	1.8	7	15.6	N	31	7	14	10	6.0	61
DALLAS - FORT WORTH	168	1001.0	1022.4	14.3	0.1	7.2	0.1	25.6	23	-11.7	8	0	16	-3.3	51	3	-42	2	3	0	0	0	2.8	27	14.3	21	10	17	8	6	3.6	
DEL RIO	313	985.4	1022.2	17.7	2.4	10.1	-0.4	26.7	13	-7.2	8	0	8	-1.7	50	4	-11	4	4	0	T	0	2.7	4	14.6	33	31	13	7	11	4.8	
EL PASO	1194	886.2	1021.0	13.9	-2.5	5.7	-0.7	20.0	30+	-8.3	3	0	25	-6.7	46	7	-3	3	4	0	25	25	2.4	32	17.9	28	7	21	5	5	2.4	88
GALVESTON	2			15.4	8.2	11.8	-0.3	22.8	25	+4.4	8	0	2			25	+5	11	7		0	0			11.6	N	4					59
HOUSTON INTERCON	29	1019.3	1023.1	17.6	2.8	10.3	-0.8	25.0	13	-7.2	9+	0	13	3.9	67	36	-55	26	7	1	0	0	0.4	4	11.6	21	24+	11	7	13	5.6	61
LUBBOCK	992	907.2	1021.4	13.1	-4.7	4.2	0.3	21.7	12	-11.7	8+	0	29	-7.8	47	T	-14	T	0	0	T	T	1.6	27	19.2	2	30	20	7	4	3.3	84
MIDLAND	869	920.8	1020.8	15.1	-1.9	6.6	0.2	23.3	23	-11.1	8	0	21	-4.4	51	1	-14	1	2	0	6	T	1.0	24	17.9	2	31	19	6	6	3.1	
PORT ARTHUR	5	1022.4		16.4	3.4	9.9	-1.2	23.3	2	-7.2	8	0	11	5.6	79	92	+.1	62	8	2	T	0	0.7	9	13.0	NW	31+	9	9	13	5.7	61
SAN ANGELO	580	953.9	1022.3	14.5	-1.3	6.6	-1.4	23.9	23	-11.7	8	0	19	+3.3	53	1	-26	1	2	0	T	0	1.6	24	13.4	2	31	18	5	8	3.5	
SAN ANTONIO	240	993.9	1022.6	17.8	1.7	9.8	-0.6	26.1	13	-8.3	8	0	13	0.6	57	14	-28	14	2	0	T	0	1.1	26	15.6	NW	31	14	10	7	4.5	71
VICTORIA	32	1018.6	1022.7	19.2	4.4	11.8	-0.2	26.1	13	-7.2	8	0	8	5.6	71	20	-25	10	6	1	0	0	0.8	2	20.6Y	N	31	11	9	11	5.6	
WACO	153	1004.4	1022.8	16.1	0.3	8.2	-0.1	26.1	23	-10.6	8	0	17	-0.6	59	44	-3	43	2	1	0	0	0.6	25	12.5	23	31+	17	4	10	4.1	
WICHITA FALLS	303	985.1	1022.6	13.9	-2.2	5.8	0.6	24.4	18	-13.3	8	0	21	-3.9	56	T	-27	T	0	0	T	0	1.1	26	15.6	34	31	19	6	6	3.4	
UTAH																																
MILFORD	1533	852.0	1027.7	4.8	-11.3	-3.2	0.3	12.2	29	-22.8	2	0	31			9	-6	5	6		147	127			12.5	SW	5	12	14	7	4.6	78
SALT LAKE CITY	1286	878.8	1027.6	2.3	-6.8	-2.3	-0.1	8.3	29	-18.9	1	0	31	-5.6	78	16	-16	6	11	1	218	127	1.3	17	15.2	NW	12	4	9	18	7.5	54
WENDOVER	1291	877.8	1027.6	3.3	-7.2	-1.9	0.6	11.1	30	-14.4	2	0	31	+8.9	63	2	-6	1	4		15	T	0.8	2								
VERMONT																																
BURLINGTON	101	1004.7	1018.0	-5.2	-18.1	-11.6	-3.2	10.0	27	-31.1	19	0	31	-16.7	67	76	32	21	19	0	7.9	457	0.5	21	13.0	S	20	4	8	19	7.4	45
VIRGINIA																																
LYNCHBURG	279	985.1		5.8	-5.1	0.4	-2.2	16.1	24	-16.7	19	0	24			69	-2	34	8		T	T			11.6	N	21	13	5	13	5.3	51
NORFOLK	7	1019.3	1020.4	9.6	-1.9	3.8	-0.9	23.9	26	+8.9	18+	0	25	-5.0	55	64	-21	33	11	1	T	T	1.7	28	13.9	2	17	17	5	9	4.5	70
RICHMOND	50	1013.5	1020.3	8.2	-4.7	1.7	-1.3	23.3	26	-15.0	19	0	28	-4.4	65	86	13	46	10	0	5	T	1.1	27	13.9	SW	14	11	6	14	5.5	57
ROANOKE	350	976.6	1020.1	6.4	-4.9	0.8	-1.7	17.2	24	-15.6	19	0	25	-7.8	56	55	-15	26	7	0	T	T	2.6	29	13.4	30	14	14	6	11	5.3	
WALLOPS ISLAND	3			5.6	-2.4	1.6	-0.8	14.4	14	-11.1	19	0	23			58	-21	41	11		18	25			22.4Y	MNW	14					
WASHINGTON																																
OLYMPIA	59	1014.6	1022.0	8.2	0.8	4.5	1.6	15.6	28	-8.3	1	0	14	3.3	90	239	37	55	18	0	15	T	2.2	20	10.7	18	10	0	6	25	8.9	
QUILLAYUTE	55	1013.2	1020.9	8.9	2.0	5.5	1.8	16.7	31	+4.4	1	0	12	3.9	91	399	28	97	25	0	8	T	1.5	16	12.1	S	26	3	1	27	8.7	21
SEATTLE U	6			8.9	4.3	6.7	2.4	15.6	28	-1.7	1	0	2			110	-21	24	16		0	0			19.2Y	SSW	10					
SEATTLE-TACOMA	122	1005.4	1022.3	7.8	2.9	5.4	2.0	13.9	28	-2.8	1	0	4	1.1	76	141	-6	34	16	0	T	0	1.9	18	11.6	SW	10	1	5	25	8.9	25
SPOKANE	718	937.0	1023.3	1.4	-4.1	-1.3	2.3	8.3	27	-10.0	1	0	27	-2.8	89	33	-30	12	14	0	389	178	1.9	19	15.6	S	10	0	2	29	9.4	11
STAMPEDE PASS R	1206	881.8		1.2	-3.8	-1.3	3.7	12.2	16	-10.0	1	0	27			472	145	90	20		2339	2642						5	4	22	7.8	
WALLA WALLA U	389			7.2	0.4	3.8	3.1	16.1	16+	-5.6	24	0	16			34	-18	13	13		5	T			10.3	SE	11	2	5	24	8.4	23
YAKIMA	321	984.8	1024.8	4.7	-4.2	0.3	2.8	15.0	27	-8.3	24+	0	31	-2.8	84	14	-20	9	4	0	137	76	1.0	28	9.4	23	10	5	7	19	7.3	

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0.3	No. of days (sunrise to sunset): Partly cloudy, 4.7	No. of days (sunrise to sunset): Cloudy, 8.10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	°C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
WEST INDIES																																	
SAN JUAN P.R.	4	1015.2	1017.6	27.6	21.6	24.6	0.5	28.9	18+	18.9	9	0	0	17.8	68	38	-57	16	16	0	0	0	3.6	8	12.5	E	26	6	24	1	4.7	65
WEST VIRGINIA																																	
BECKLEY	763	928.5	1021.0	2.6	-7.2	-2.3	-2.0	12.8	26	-19.4	9	0	27	-6.1	76	78	-10	17	18	0	417	178	2.5	24	15.6	28	13	6	5	20	7.5	
CHARLESTON	288	985.4	1020.9	4.9	-5.3	-0.2	-1.6	17.8	26+	-16.7	19+	0	24	-4.4	75	73	-13	13	17	1	363	102	2.1	25	16.1	25	13	4	7	20	7.5	
ELKINS	994	946.2		3.1	-8.9	-2.9	-1.8	17.2	26	-24.4	19	0	29			79	-5	17	16		533	203						4	7	20	7.6	
HUNTINGTON	252	989.5	1020.8	4.6	-5.1	-0.2	-1.5	17.2	26	-17.8	9	0	26	-4.4	74	72	-8	18	16	0	259	127	1.7	26	13.0	09	13	3	6	24	8.1	
PARKERSBURG	187			2.8	-6.2	-1.7	-2.2	15.0	26	-17.2	9	0	29			65	-14	13	13		247	102			19.2	S	13					29
WISCONSIN																																	
GREEN BAY	208	991.9	1017.9	-5.0	-16.4	-10.7	-1.4	3.3	2	-27.8	8	0	31	-13.9	73	44	16	7	20	0	632	381	2.5	26	13.0	SW	10	7	7	17	6.7	42
LA CROSSE	198	994.6	1020.5	-4.6	-16.4	-10.5	-1.7	5.0	28	-30.0	17	0	31	-14.4	72	18	-7		8	0	203		1.0	27								
MADISON	262	985.8	1018.7	-3.3	-14.9	-9.1	-0.6	5.0	12	-27.8	27	0	31	-12.2	76	14	-18	4	13	0	257	152	2.1	26	11.2	W	30+	9	11	11	5.8	38
MILWAUKEE	205	992.2	1018.5	-2.6	-12.5	-7.5	-0.5	3.9	12	-23.3	8	0	31	-11.7	70	29	-12	7	15	0	376	279	3.3	26	16.1	SW	2	9	8	16	6.2	33
WYOMING																																	
CASPER	1627	838.1	1022.2	0.2	-10.2	-5.0	-0.1	9.4	29	-25.0	3	0	30	-10.0	67	11	-2	4	5	0	175	127	5.8	23	17.9	21	11	6	16	17	6.9	
CHEYENNE	1867	810.7	1019.9	3.5	-9.2	-2.8	0.2	13.3	29	-22.2	26+	0	29	-12.2	51	8	-4	10	4	0	152	178	5.5	29	18.8	NW	15	7	9	15	6.4	54
LANDER	1694	830.3	1024.5	0.1	-14.3	-7.1	-0.2	10.6	28+	-24.4	4	0	31	-12.8	68	7	-5	11	5	0	124	229	3.6	20	14.8	NW	30	5	10	16	6.4	67
SHERIDAN	1208	879.8		1.4	-10.9	-4.7	1.4	11.7	22	-27.8	7	0	29			13	-5	5	8	0	216	203	1.7	29	17.0	NW	5	5	7	19	7.3	47

HEATING DEGREE DAYS

(Base 65°F.)

JANUARY 1976

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	[illegible]	[illegible]	[illegible]
HUNTSVILLE	[illegible]	[illegible]	[illegible]
MOBILE	[illegible]	[illegible]	[illegible]
MONTGOMERY	[illegible]	1467	[illegible]
ALASKA			
ANCHORAGE	1468	6500	5824
FAIRBANKS	[illegible]	[illegible]	[illegible]
JUNEAU	[illegible]	[illegible]	[illegible]
NOME	[illegible]	[illegible]	[illegible]
ADAK NAVY	[illegible]	[illegible]	[illegible]
KODIAK	[illegible]	[illegible]	[illegible]
KOTZEBUE	[illegible]	[illegible]	[illegible]
ARIZONA			
FLAGSTAFF	1475	7969	7361
PHOENIX	[illegible]	[illegible]	[illegible]
TUCSON	[illegible]	10070	[illegible]
YUMA	[illegible]	[illegible]	[illegible]
ARKANSAS			
FORT SMITH	[illegible]	[illegible]	[illegible]
LITTLE ROCK	777	2050	[illegible]
CALIFORNIA			
BAKERSFIELD	448	1361	1404
BISHOP	[illegible]	[illegible]	[illegible]
BLUE CANYON	[illegible]	2725	[illegible]
BURBANK	[illegible]	2745	2555
CHICO	588	1954	1641
LONG BEACH	[illegible]	[illegible]	[illegible]
LOS ANGELES	184	578	902
MT SHASTA	[illegible]	[illegible]	[illegible]
OAKLAND	[illegible]	1811	[illegible]
PALM SPRINGS	547	1676	[illegible]
SACRAMENTO	540	1404	1418
SAN BERNARDINO	[illegible]	[illegible]	[illegible]
SAN DIEGO	[illegible]	[illegible]	[illegible]
SAN FRANCISCO	[illegible]	1853	[illegible]
SAN FRANCISCO	[illegible]	1677	[illegible]
SANTA MARIA	[illegible]	[illegible]	[illegible]
STOCKTON	[illegible]	1796	[illegible]
COLORADO			
ALAMOSA	[illegible]	5363	[illegible]
COLORADO SPRINGS	1075	[illegible]	[illegible]
DENVER	1006	3251	[illegible]
GRAND JUNCTION	1335	[illegible]	[illegible]
PUEBLO	1049	[illegible]	3190
CONNECTICUT			
HARTFORD	1174	[illegible]	[illegible]
NEW HAVEN	[illegible]	3455	[illegible]
DELAWARE			
WILMINGTON	[illegible]	2088	[illegible]
DISTRICT OF COLUMBIA			
WASHINGTON	1158	2991	[illegible]
WASHINGTON (NATIONAL AP)	956	2158	[illegible]
FLORIDA			
DAYTONA BEACH	[illegible]	1015	[illegible]
FORT MYERS	[illegible]	[illegible]	284
JACKSONVILLE	[illegible]	[illegible]	[illegible]
KEY WEST	[illegible]	53	[illegible]
LAKELAND U	[illegible]	[illegible]	[illegible]
MIAMI	[illegible]	[illegible]	122
ORLANDO	[illegible]	537	442
TALLAHASSEE	[illegible]	1011	[illegible]
TAMPA	[illegible]	[illegible]	[illegible]
WEST PALM BEACH	[illegible]	240	[illegible]
GEORGIA			
ATHENS	[illegible]	[illegible]	[illegible]
ATLANTA	[illegible]	1962	[illegible]
AUGUSTA	[illegible]	1576	[illegible]
COLUMBUS	[illegible]	1571	1512
MACON	[illegible]	[illegible]	[illegible]
SAVANNAH	[illegible]	[illegible]	[illegible]
WAYCROSS	[illegible]	1285	[illegible]
IDAHO			
BOISE	1013	3307	3487
LEWISTON	842	2944	3269
POCATELLO	1472	3856	4083
ILLINOIS			
CAIRO	[illegible]	[illegible]	[illegible]
CHICAGO O'HARE	930	2678	[illegible]
CHICAGO MIDWAY	1342	3407	4269
PEORIA	1369	3386	3819
ROCKFORD	1413	3547	[illegible]
SPRINGFIELD	[illegible]	[illegible]	[illegible]
INDIANA			
EVANSVILLE	1404	3560	[illegible]
FORT WAYNE	1249	3342	3967
INDIANAPOLIS	1280	3169	[illegible]
IOWA			
BURLINGTON	1100	2743	[illegible]
CLINTON	1338	3451	[illegible]
DES MOINES	1265	3246	[illegible]
DUBUQUE	1132	[illegible]	5244
MASON CITY	1629	7084	[illegible]
SIOUX CITY	1074	[illegible]	[illegible]
WATERLOO	[illegible]	[illegible]	[illegible]
KANSAS			
CHANUTE	1357	3465	[illegible]
DODGE CITY	1297	3434	[illegible]
GOODLAND	1502	4060	[illegible]
TOPEKA	1348	3241	[illegible]
WICHITA	1148	3039	[illegible]
KENTUCKY	1015	[illegible]	[illegible]
LEXINGTON	[illegible]	2881	[illegible]
LOUISVILLE	1134	2890	2808
LOUISVILLE	1040	2550	2770
LOUISIANA			
ALEXANDRIA	569	1411	1412
BATON ROUGE	507	1229	1194
LAKE CHARLES	456	1103	[illegible]
NEW ORLEANS	445	1106	[illegible]
SHREVEPORT	551	1372	1390
MAINE			
CARIBOU	1849	5605	[illegible]
PORTLAND	1522	4215	[illegible]
MARYLAND			
BALTIMORE	1053	2506	[illegible]
MASSACHUSETTS			
BLUE HILL OBSV	1327	3407	[illegible]
BOSTON	1198	2851	[illegible]
WORCESTER	1412	3844	[illegible]
MICHIGAN			
ALPENA	1621	4549	4455
DETROIT	1308	3610	3472
DETROIT METRO	1413	3614	3624
FLINT	1448	3680	[illegible]
GRAND RAPIDS	1420	3828	[illegible]
HOUGHTON LAKE	1575	4484	[illegible]
LANSING	1469	3839	[illegible]
MARQUETTE	1525	4443	4532
MUSKEGON	1275	3540	3787
SAULT STE MARIE	1686	[illegible]	5028
MINNESOTA			
DULUTH	1867	5666	5518
INTERNATIONAL FALLS	2025	6118	6113
MINNEAPOLIS	1650	4454	[illegible]
ROCHESTER	1615	4426	4742
ST CLOUD	1828	[illegible]	5136
MISSISSIPPI			
JACKSON	835	1567	1465
MERIDIAN	886	1754	[illegible]
MISSOURI			
COLUMBIA REGIONAL	1121	2970	[illegible]
KANSAS CITY	1155	3044	[illegible]
ST LOUIS	1150	3066	[illegible]
ST LOUIS	1137	2985	[illegible]
SPRINGFIELD	997	2704	[illegible]
MONTANA			
BILLINGS	1186	3989	[illegible]
BUTTE	1551	5008	5180
GREAT FALLS	1192	4174	4330
HAVRE	1313	4514	[illegible]
HELENA	1245	4011	[illegible]
KALISPELL	1261	4569	4988
MILES CITY	1437	4538	4599
MISSOULA	1141	4431	[illegible]
NEBRASKA			
GRAND ISLAND	1251	3761	3781
LINCOLN	1255	3538	3688
NORFOLK	1343	4002	4092
NORTH PLATTE	1460	4357	3933
OMAHA	1219	3357	3589
SCOTTSBLUFF	1345	3745	3893
VALENTINE	1348	4246	4196
NEVADA			
ELKO	1209	4108	4310
ELY	1194	4233	4355
LAS VEGAS	553	1496	1690
RENO	1012	3460	3456
WINNEMUCCA	986	3359	3810
NEW HAMPSHIRE			
CONCORD	1672	4629	4162
MT WASHINGTON OBS	1935	7584	7727
NEW JERSEY			
ATLANTIC CITY	1128	2898	2795
ATLANTIC CITY C	994	2467	2502
NEWARK	1177	2745	2829
TRENTON	1121	2636	2805
NEW MEXICO			
ALBUQUERQUE	979	2851	2657
CLAYTON	930	2895	2994
ROSWELL	785	2031	2380
NEW YORK			
ALBANY	1511	3839	3911
BINGHAMTON	1487	3987	4054
BUFFALO	1400	3652	3788
NEW YORK U	1163	2706	2698
NEW YORK KENNEDY	1140	[illegible]	[illegible]
NEW YORK LA GUARDIA	1118	2595	2716
ROCHESTER	1395	3643	3703
SYRACUSE	1449	3778	3688
NORTH CAROLINA			
ASHEVILLE	960	2585	2535
CAPE HATTERAS R	653	1389	1500
CHARLOTTE	789	1946	1990
GREENSBORO	895	2203	2336
RALEIGH	843	2033	2146
WILMINGTON	613	1338	1497
NORTH DAKOTA			
BISMARCK	1642	4356	5244
FARGO	1774	5148	5374
WILLISTON	1675	5281	5332
OHIO			
AKRON	1293	3313	3528
CINCINNATI ABBE OB	1139	2772	2863
CLEVELAND	1336	3424	3434
COLUMBUS	1263	3187	3323
DAYTON U	1259	3132	3274
MANSFIELD	1367	3552	3318
TOLEDO	1393	3734	3656
YOUNGSTOWN	1391	3607	3614
OKLAHOMA			
OKLAHOMA CITY	801	2134	2283
TULSA	855	2249	2282
OREGON			
ASTORIA	642	2724	2892
BURNS	1150	4006	4133
EUGENE	767	2356	2682
MEDFORD	807	2768	2852
PENDLETON	791	2602	3139
PORTLAND	698	2416	2748
SALEM	743	2684	2735
SEXTON SUMMIT R	757	3353	3372
PENNSYLVANIA			
ALLENTOWN	1262	3125	3332
ERIE	1361	3559	3720
HARRISBURG	1150	2865	3066
PHILADELPHIA	1120	2555	2789
PITTSBURGH	1278	3375	3418
PITTSBURGH U	1220	3033	3038
READING	1322	3331	3580
WILLIAMSPORT	1305	3359	3435
RHODE ISLAND			
BLOCK ISLAND	1454	2783	2936
PROVIDENCE	1283	3245	3278
SOUTH CAROLINA			
CHARLESTON	824	1351	1353
CHARLESTON U	499	1047	1177
COLUMBIA	662	1591	1650
GREENVILLE-SPARTNBRG	828	2014	1963
SOUTH DAKOTA			
ABERDEEN	1639	4672	5028
HURON	1544	4563	4699
RAPID CITY	1269	4012	[illegible]
SIOUX FALLS	1528	4528	4585
TENNESSEE			
BRISTOL	970	2423	2598
CHATTANOOGA	934	2398	2181
KNOXVILLE	944	2326	2144
MEMPHIS	783	1908	2023
NASHVILLE	870	2157	2279
OAK RIDGE	1000	2558	2407
TEXAS			
ABILENE	692	1749	1662
AMARILLO	861	2449	2528
AUSTIN	476	1112	1126
BROWNSVILLE	215	474	410
CORPUS CHRISTI	275	633	611
DALLAS FT WORTH	610	1419	1503
DEL RIO	456	1013	1061
EL PASO	696	1821	1796
GALVESTON	355	794	744
HOUSTON INTERCON	441	1083	928
LUBBOCK	780	2094	2194
MIDLAND	652	1674	1692
PORT ARTHUR	464	1102	981
SAN ANGELO	642	1591	1466
SAN ANTONIO	472	1102	1035
VICTORIA	364	851	795
WACO	558	1279	1321
WICHITA FALLS	690	1773	1835
UTAH			
MILFORD	1197	3886	3747
SALT LAKE CITY	1144	3386	3512
WENDOVER	1124	3524	3522
VERMONT			
BURLINGTON	1669	4436	4410
VIRGINIA			
LYNCHBURG	994	2524	2530
NORFORK	804	1869	2016
RICHMOND	917	2191	2363
ROANOKE	973	2429	2529
WALLOPS ISLAND	926	2082	2363
WASHINGTON			
OLYMPIA	766	3187	3140
QUILLAYUTE	711	3197	3276
SEATTLE	644	2452	2680
SEATTLE-TACOMA	712	2631	2932
SPOKANE	1091	3859	4026
STAMPEDE PASS R	1088	5153	5235
WALLA WALLA U	799	2581	2946
YAKIMA	1004	3358	3672
WEST VIRGINIA			
BECKLEY	1148	3029	3208
CHARLESTON	1025	2612	2740
ELKINS	1175	3221	3404
HUNTINGTON	1032	2607	2747
PARKERSBURG U	1108	2856	2836
WISCONSIN			
GREEN BAY	1614	4562	4589
LA CROSSE	1600	4257	4321
MADISON	1520	4101	4439
MILWAUKEE	1438	3769	4165
WYOMING			
CASPER	1295	4188	4227
CHEYENNE	1175	3932	3993
LANDER	1411	4585	4526
SHERIDAN	1282	4272	4374

COOLING DEGREE DAYS

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM			4
HUNTSVILLE			
MOBILE			13
MONTGOMERY	0		4
ALASKA			
ANCHORAGE			
ANNETTE			
BARROW			0
BARTER ISLAND			0
BETHEL			
BETTLES			0
BIG DELTA			0
CAPE BAT			0
FAIRBANKS			0
GULKANA			0
HOMER			0
JUNEAU	0		0
KING SALMON			0
KODIAK			0
KOTZEBUE			
MCGRATH			0
NOME			0
ST. PAUL ISLAND			0
SUMMIT			0
TALKEETNA			0
UNALAKLEET			
VALDEZ			0
YAKUTAT			0
ARIZONA			
FLAGSTAFF			
PHOENIX	0	0	
TUCSON	2	2	0
WINSLOW	0		
YUMA	4	4	10
ARKANSAS			
FORT SMITH			0
LITTLE ROCK			
CALIFORNIA			
BAKERSFIELD			0
BISHOP			
BLUE CANYON			0
EUREKA			0
FRESNO			0
LONG BEACH	14	14	0
LOS ANGELES	29	29	5
LOS ANGELES C	22	22	10
MT SHASTA R			0
OAKLAND		0	0
RED BLUFF			0
SACRAMENTO			0
SANBERG R			
SAN DIEGO	14	14	10
SAN FRANCISCO	0	0	0
SAN FRANCISCO			
SANTA MARIA			
STOCKTON			
COLORADO			
ALAMOSA			0
COLORADO SPRINGS			0
DENVER			0
GRAND JUNCTION	0		0
PUEBLO	0	0	0
CONNECTICUT			
BRIDGEPORT	0	0	0
HARTFORD	0	0	0
DELAWARE			
WILMINGTON			0
DISTRICT OF COLUMBIA			
WASHINGTON DULLES	0	0	0
WASHINGTON NATIONAL	0	0	0
FLORIDA			
APPALACHICOLA U		0	18
DAYTONA BEACH	12	12	37
FORT MYERS	42	42	81
JACKSONVILLE			25
KEY WEST	33	33	73
LAKELAND U	23	23	58
MIAMI	92	92	121
ORLANDO	18	18	52
PENSACOLA	3	3	27
TALLAHASSEE			23
TAMPA	17	17	5
WEST PALM BEACH	53	53	73
GEORGIA			
ATHENS			0
ATLANTA			
AUGUSTA			
COLUMBUS			10
MACON			1
ROME			
SAVANNAH	0		15

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
HAWAII			
HILO	201	201	191
HONOLULU	278	278	264
KAHULUI	196	196	208
LIHUE	282	282	195
IDAHO			
BOISE			
LEWISTON			
POCATELLO			
ILLINOIS			
CAIRO U			0
CHICAGO O HARE		0	
CHICAGO MIDWAY			
MOLINE			0
PEORIA			0
ROCKFORD			
SPRINGFIELD			0
INDIANA			
EVANSVILLE			
FORT WAYNE			0
INDIANAPOLIS			01
SOUTH BEND			
IOWA			
BURLINGTON			
DES MOINES		0	
DUBUQUE			
SIOUX CITY			
WATERLOO	0		
KANSAS			
CONCORDIA		0	
DODGE CITY			
GOODLAND			
TOPEKA			
WICHITA	0		
KENTUCKY			
COVINGTON			
LEXINGTON			
LOUISVILLE	0		0
LOUISIANA			
ALEXANDRIA	1	1	10
BATON ROUGE	2	2	17
LAKE CHARLES			21
NEW ORLEANS	4	4	28
SHREVEPORT	2	2	0
MAINE			
CARIBOU	0	0	0
PORTLAND	0	0	0
MARYLAND			
BALTIMORE		0	0
MASSACHUSETTS			
BLUE HILL OBS R	0	0	0
BOSTON			
WORCHESTER			
MICHIGAN			
ALPENA	0	0	0
DETROIT	0	0	0
DETROIT METRO	0	0	
FLINT	0	0	0
GRAND RAPIDS	0	0	0
HOUGHTON LAKE		0	
LANSING		0	0
MARQUETTE U		0	0
MUSKEGON	0	0	
SAULT STE MARIE		0	
MINNESOTA			
DULUTH		0	
INTERNATIONAL FALLS	0	0	0
MINNEAPOLIS	0	0	0
ROCHESTER	0	0	0
ST CLOUD	0	0	
MISSISSIPPI			
JACKSON	0	0	14
MERIDIAN		0	14
MISSOURI			
COLUMBIA REGIONAL	0	0	0
KANSAS CITY			
ST JOSEPH	1	0	
ST LOUIS	0		
SPRINGFIELD			
MONTANA			
BILLINGS		0	
GLASGOW		0	0
GREAT FALLS			
HAVRE			
HELENA		0	0
KALISPELL		0	0
MILES CITY		0	0
MISSOULA			0

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
NEBRASKA			
GRAND ISLAND	0		
LINCOLN			
NORFOLK	0		
NORTH PLATTE			
OMAHA			
SCOTTSBLUFF			0
VALENTINE		0	
NEVADA			
ELKO			0
ELY		0	0
LAS VEGAS			0
RENO		0	
WINNEMUCCA			0
NEW HAMPSHIRE			
CONCORD		0	0
MT WASHINGTON OBS			
NEW JERSEY			
ATLANTIC CITY	0	0	0
ATLANTIC CITY U	0	0	0
NEWARK	0	0	
TRENTON U			
NEW MEXICO			
ALBUQUERQUE		0	0
CLAYTON			
ROSWELL		0	0
NEW YORK			
ALBANY			0
BINGHAMTON		0	0
BUFFALO		0	
NEW YORK U			0
NEW YORK KENNEDY			
NEW YORK LA GUARDIA			0
ROCHESTER		0	
SYRACUSE			
NORTH CAROLINA			
ASHEVILLE		0	
CAPE HATTERAS R		0	
CHARLOTTE		0	0
GREENSBORO		0	0
RALEIGH	0	0	
WILMINGTON	2	2	
NORTH DAKOTA			
BISMARCK		0	
FARGO	0	0	
WILLISTON		0	
OHIO			
AKRON	0	0	0
CINCINNATI ABBE JB	0	0	0
CLEVELAND	0	0	0
COLUMBUS		0	0
DAYTON U		0	
MANSFIELD			
TOLEDO		0	
YOUNGSTOWN		0	0
OKLAHOMA			
OKLAHOMA CITY	0	0	0
TULSA	0	0	0
OREGON			
ASTORIA	0	0	0
BURNS U	0	0	0
EUGENE		0	0
MEDFORD		0	
PENDLETON		0	0
PORTLAND		0	0
SALEM		0	
SEXTON SUMMIT R		0	0
PACIFIC AREA			
GUAM TAGUAC R	350	350	381
JOHNSTON	345	345	366
KOROR	530	530	502
KWAJALEIN	483	483	502
MAJURO	451	451	490
PAGO PAGO	462	462	474
PONAPE R	522	522	484
TRUK MOEN ISLAND	507	507	496
WAKE	388	388	372
YAP	449	449	477
PENNSYLVANIA			
ALLENTOWN		0	
ERIE			0
HARRISBURG			0
PHILADELPHIA		0	
PITTSBURGH		0	
SCRANTON		0	
WILLIAMSPORT		0	
RHODE ISLAND			
BLOCK ISLAND		0	0
PROVIDENCE		0	

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
SOUTH CAROLINA			
CHARLESTON	6	6	
CHARLESTON			
COLUMBIA			
GRNVLLE-SPRTNBRG			
SOUTH DAKOTA			
ABERDEEN			
HURON			
RAPID CITY			0
SIOUX FALLS			0
TENNESSEE			
BRISTOL			
CHATTANOOGA			0
KNOXVILLE			
MEMPHIS			
NASHVILLE			
OAK RIDGE			
TEXAS			
ABILENE			0
AMARILLO			0
AUSTIN			
BROWNSVILLE		41	
CORPUS CHRISTI	20	20	
DALLAS FT WORTH			
DEL RIO			
EL PASO			
GALVESTON			
HOUSTON INTERCON			10
LUBBOCK			
MIDLAND			
PORT ARTHUR			
SAN ANGELO			
SAN ANTONIO			
VICTORIA			01
WACO			0
WICHITA FALLS			0
UTAH			
MILFORD			
SALT LAKE CITY			
WENDOVER			
VERMONT			
BURLINGTON			0
VIRGINIA			
LYNCHBURG			
NORFOLK			
RICHMOND			
ROANOKE			0
WALLOPS ISLAND			
WASHINGTON			
OLYMPIA			
QUILLAYUTE			
SEATTLE			
SEATTLE-TACOMA			
SPOKANE			
STAMPEDE PASS R			
WALLA WALLA U			10
YAKIMA			
WEST INDIES			
SAN JUAN P.R.	357	357	366
WEST VIRGINIA			
BECKLEY			
CHARLESTON			
ELKINS			
HUNTINGTON			
PARKERSBURG U			
WISCONSIN			
GREEN BAY			
LA CROSSE			
MADISON			
MILWAUKEE			
WYOMING			
CASPER			
CHEYENNE			0
LANDER			
SHERIDAN			

STORM SUMMARY

JANUARY 1976

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				¢ ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROP ERTY	CROPS			PROP ERTY	CROPS			PROP ERTY	CROPS			PROP ERTY	CROPS			PROP ERTY	CROPS			PROP ERTY	CROPS
Alabama	1	1		1	5																								
Alaska *																													
Arizona *																													
Arkansas *																													
California *																													
Colorado												?																	
Connecticut																											4		
Delaware												2																	
Florida	3	3			3											3													
Georgia																													
Hawaii																											4		
Idaho												4						2		5				4		1			
Illinois												4														1	1		
Indiana	3	1			5							5																	
Iowa *																													
Kansas *																													
Kentucky										2	30	6																	
Louisiana	3	1		8	6																								
Maine																				5				4					
Maryland & DC												4												3					
Massachusetts																		3									4		
Michigan												5								5									
Minnesota										2	3	1								6									
Mississippi												3															?	?	
Missouri											7	5																	
Montana *																													
Nebraska																		1											
Nevada *																													
New Hampshire												4								5									
New Jersey *																													
New Mexico *																													
New York												4								?							6		
North Carolina												4						3	?	5		1							
North Dakota																		1	1	4			1	4					
Ohio	1	1			4						2	6				6											4		
Oklahoma *																													
Oregon																											6	?	
Pacific Area *																													
Pennsylvania												5								4			?	4			4		
Puerto Rico *																													
Rhode Island												?															4		
South Carolina *																													
South Dakota																				5									
Tennessee												5																	
Texas	1	1			4											5													
Utah *																													
Vermont																											5		
Virginia												3											38						
Virgin Islands *																													
Washington *																													
West Virginia												5										2	20	5					
Wisconsin																			?										
Wyoming												4																	

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

JANUARY 1976

Herbert J. Thompson, Office of Hydrology

The most serious flooding during January occurred in the Pacific Northwest. Losses have been estimated at $938,000 in the Willamette Basin and $106,000 on Oregon coastal streams. Losses for Washington coastal streams are not yet available.

Major storm systems late in December and late in January caused minor to moderate flooding on many streams in the eastern half of the country. Basins affected included the lower Mississippi, Ohio River, East Gulf Drainage, Atlantic Slope Drainages, and the lower Great Lakes--St. Lawrence River. In New York, Pennsylvania and the New England states significant flooding occurred on several streams when runoff from the late January storm was augmented by snowmelt with flooding enhanced by ice jams, many of which remained in place at the end of the month, posing an additional flood threat.

In southern California, a record-breaking drouth was in progress at the end of January.

Hydrologic events of unusual significance or involving loss of life or property damage are discussed in more detail below.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ST. LAWRENCE DRAINAGE		
Great Lakes Tributaries in Michigan	January was an abnormally cold month with precipitation at normal to above normal levels. The traditional thaw over southern Michigan did not occur during the month this year and a significant snowpack exists over all of Michigan. Water content of the snowpack ranged from about 1.4 inches in extreme SE lower Michigan to about 3.75 inches in the White River Basin, with most basin averages between 2 and 3 inches. The potential exists for widespread significant flooding when this snowpack melts. Minor ice jam flooding occurred on the Manistee River near Manistee, from the 9th through the end of the month, and on the St. Clair River in the Marine City area several times during the month. No damage was reported, however.	0	0
Lower Great Lakes & St. Lawrence Drainage	Below normal temperatures with heavy snowfall resulted in water equivalents ranging from 2 to 5 inches over the area at the end of the month. Below zero weather the third week resulted in a rapid build-up of ice in streams. A brief thaw with up to 0.5 inch rain on the 26th-27th resulted in runoff and numerous ice jams. About 2 feet of ice jam flooding was reported on Buffalo and Cayuga Creeks near Buffalo, NY, and on Otter Creek at Center Rutland, VT. Several roads were closed in rural areas for varying lengths of time. The upper Genessee River was over flood stage briefly at Portageville, NY, on the 27th. Many of these ice jams remained in place at the end of the month creating a potential flood threat.	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

JANUARY 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE		
New England Streams	Below normal temperatures during most of January with record lows at many points on the 22d-23d caused heavy ice cover on streams. A thaw beginning on the 26th melted much of the above-normal snowpack which, combined with rains of 2 to 4 inches, resulted in considerable runoff and flooding. Ice jams developed on many smaller streams with flooding on several, including the Narraguagus near Cherryfield, the Temple near Farmington and the Saco River near Fryeburg, all in Maine, and along Route 16 in New Hampshire. On the larger rivers the most serious flooding was at Stevenson, CT, where the Housatonic crested 5.2 feet over flood stage. The Pemigewassett crested 3.2 feet over flood stage near Plymouth, NH. Crests 1.5 to 2 feet over flood stage occurred on the Charles River in Massachusetts, the Farmington River in Connecticut and the Blackstone River in Rhode Island. In Vermont ice jams at the mouth of the White River and on the Connecticut River caused a crest 4.4 feet over flood stage at White River Junction. Considerable highway, street, and basement flooding was reported with no damage estimates available.	0	N.A.
Hudson River Basin	Extremely cold weather prevailed over the Albany District from the beginning of the month until the 26th. Of special mention were the nights of the 18th and 22d, when temperatures dipped below zero even in the far southern parts of our district,and when Old Forge in the Adirondacks recorded a 43 below for the second lowest temperature ever recorded in New York State. Snow accumulated to 55 inches at Canada Lake 4N, in the south central Adirondacks. This long and very cold spell led to extensive ice formation on all of the rivers in the district with many pools becoming completely frozen over. The January thaw of 1976 began with a spell of extremely hazardous freezing rain during the night of the 25th, and the temperature climbed above the freezing point in the mid-morning of the 26th. Continued advection of warm moist air raised the mercury into the fifties even in some parts of the Adirondack region with heavy rain especially in the Catskills and Berkshires. As a very slowly moving cold front edged its way south and east, the rain began changing into snow, starting in the Utica/Rome area around 8 a.m. on the 27th and not reaching the southern and eastern parts until the morning of the 28th.	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE-Cont'd		
	Rainfall amounts exceeded 3.5 inches in the Catskills and 2.5 inches over the lower Hudson Valley and parts of Vermont. Rapid melting of the snowpack took place and as the runoff flowed into the streams the ice cover broke up leading to extensive ice jamming in the Batten Kill, Hoosic, Wallkill, Catskill, Esopus, Susquehanna, Mohawk, Schoharie and even the Hudson in New York. A large amount of ice jamming occurred in the vicinity of Eagle Bridge and Buskirk on the Hoosic River, causing flooding and threatening a historic covered bridge. There was also considerable overflow reported from the Batten Kill. Runoff and ice from these two tributaries resulted in a large ice jam forming on the Hudson just upstream of Troy, which brought the river up ten feet and caused considerable inundation into a residential area in the flood plain at Waterford, NY. A few hours later this jam broke, spilling the water and ice over the U. S. Dam, and causing it to pile up in a massive jam two miles long in the tidal portion of the river and causing some minor overflow in Troy, which subsided as the river flow diminished and as the tide ebbed. The jam remained in place at the end of the month. The Mohawk, which is usually the most seriously affected by ice jamming, had only a couple of minor jams. The main reason for this is that snow depths averaged a foot and a half and the rain changed to snow in this area during the morning of the 27th. There was negligible runoff in the Mohawk River upstream of the junction with the Schoharie Creek at Tribes Hill. The Schoharie Creek itself had a six-foot rise above Gilboa Dam and a three-foot rise below the dam. The reservoir itself went up nearly sixty feet and began spilling after the end of the month. The rise on the lower portion of Schoharie Creek ripped out the ice cover in that reach and led to a fairly sizeable ice jam on an island just below the Barge Canal Dam at Tribes Hill resulting in stages ten feet above normal in that area. The only reporting stations to exceed flood stage were the Battenkill at Battenkill, NY, and the Hoosic at Eagle Bridge, NY, with crests 1.2 feet and 1.7 feet over flood stage respectively, and the Wallkill at Gardiner, NY, where the gage was found to be reading erroneously and the crest was estimated at 4 feet over flood stage.		
New Jersey Coastal Drainage	The storm of January 26th-28th caused generally light flooding on streams in this area. Rainfall amounts ranged from 2 to 3 inches. Snowmelt was not a significant factor. Streams were ice covered and jams probably played a role in the flooding. The Millstone River crested 3.4 feet over flood stage at Blackwells Mills and about 1.5 to 2 feet of flooding occurred along the Raritan	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE-Cont'd		
	River. Otherwise crests less than a foot over flood stage occurred on the Wanaque, Pompton, Ramapo, Rockaway, Saddle, and Passaic Rivers.		
Delaware River Basin	The cold weather that affected much of the northeast during January (discussed above) resulted in heavy ice formation on streams in the upper Delaware Basin and on the Schuykill and Lehigh rivers. On the main Delaware ice jams were present at Montague, Delaware Water Gap and Trenton. The storm of January 26th-28th deposited rains of 2.5 to 4 inches over the basin which combined with snowmelt to cause a significant runoff. Minor flooding occurred on the Delaware River at Easton, Jordan Creek at Allentown, PA, along the Lehigh River, on Assunpink Creek at Trenton, NJ, and on portions of the Schuylkill River. However, at Reading and Pottsdown on the Schuykill crests were about 5 feet over flood stage. Damage along the Schuykill was estimated at $12,000. Savings from warnings were estimated at $25,000, mainly due to evacuation of heavy equipment.	0	12
Susquehanna River Basin	The January weather and storm conditions that affected the Hudson River Basin (above) also affected the headwaters of the Susquehanna. Some overflow into farmlands occurred from a large ice jam in the vicinity of Windsor, NY. A second jam near Conklin, NY, later broke and moved downstream to cause a large ice jam near Owego. The Owego ice jam resulted in stages five to seven feet above normal at Vestal, NY. There was another ice jam on the Chenango River near the Binghamton city line. At times this ice jam affected the stage at Chenango Forks, and resulted in lowland flooding at Port Crane, NY. The Susquehanna reached flood stage at Bainbridge, NY, and crested 1.2 feet over flood stage at Conklin, NY. Downstream in Pennsylvania the storm of the 26th-27th produced 2 to 3 inches of rain. This rain with snowmelt produced significant runoff with some small stream flooding. However, major rivers crested at about three quarters bankfull.	0	N.A.
Potomac River Basin	Moderate to severe small stream flooding was reported in the Basin early in January as a result of the late December rains. Record high January monthly and daily mean discharges were reported on some streams by the U. S. Geological Survey. However, no river observation stations were reported over flood stage.	0	N.A.
James River Basin (Virginia)	Rains of 1 to 1.5 inches December 26th-27th and similar amounts again on the 31st caused strong rises on streams in the basin with the Rivanna River at Palmyra and the James River at the Westham gage in Richmond cresting about 2 feet over flood stage. The James also crested slightly over flood stage at Lick Run and the City Locks gage in Richmond. Late in January,	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE - Cont'd		
	2 to 2.5 inches of rain on the 26th-27th caused minor flooding again at Palmyra and the Richmond Westham gage. The Appomattox River crested just below flood stage on both rises.		
Southeast Atlantic Coast Drainage	There were two periods of minor to moderate flooding during January in this area. The first resulted from rains of 2 to 4 inches late in December. The Dan River in the Roanoke Basin crested 3.8 feet over flood stage on the 2d while minor flooding occurred at Randolph, VA, on the Roanoke. Releases from reservoirs caused lowland flooding on the lower Roanoke most of the month which extended into February. About 1.5 to 2 feet of flooding occurred on the middle Cape Fear River and the lower Broad River crested 3.1 feet over flood stage at Blair, SC. Minor flooding occurred on the Neuse River at Smithfield, NC, on the Little Pee Dee and on the lower Pee Dee. Moderately heavy precipitation of 0.5 to 1.5 inches on the 7th-8th was followed by heavy rainfall on the 26th-27th. Amounts of 2 to 3.5 inches over the lower elevations and more than 5 inches over the mountainous headwaters with some snow melt during the latter period caused flooding which began in late January and extended into February on the lower reaches of most streams. Crests about 3 feet over flood stage occurred on the lower Tar and middle Cape Fear Rivers and up to 4 feet of flooding was reported along the Neuse River. Lowland flooding on the Lumber River ended on the 21st and began again on the 27th. The Broad River crested 1.7 feet over flood stage at Blair, SC, and minor flooding was reported on the upper Saluda and North Fork Edisto Rivers. Lowland flooding on the lower Savannah River occurred the 6th-23d.	0	N.A.
	EAST GULF OF MEXICO DRAINAGE		
Appalachicola River Basin	The heavy rains of January 26th-27th caused small stream flooding in the headwaters of the basin. At Atlanta, GA, 3.5 inches of rain caused flooding on Peachtree Creek with a crest 4.4 feet over flood stage. The lower Appalachicola crested 4 feet over flood stage at Blountstown, FL, on February 1st.	0	N.A.
Choctawhatchee and Escambia River Basins	The storm of late December resulted in minor flooding on the Escambia River with a crest about one foot over flood stage on the 2d. The storm of January 26th-27th caused minor flooding on the Choctawhatchee River which crested 0.5 foot near flood stage on the 31st.	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

JANUARY 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	EAST GULF OF MEXICO DRAINAGE - Cont'd		
Tombigbee River Basin	The heavy rains of late December caused some flooding in the headwaters of the Tombigbee. Old Town Creek crested 2.7 feet over flood stage at Tupelo, MS, on the 3d, and the East Fork at Fulton, MS, one foot over flood stage on the 4th. The storm of January 26th-27th caused minor flooding on the Etawah River in the Alabama River drainage and on the lower Black Warrior and Tombigbee Rivers. A crest 3.6 feet over flood stage was reported at Coffeeville, AL, on the Tombigbee River.	0	N.A.
Pearl River Basin	Although monthly rainfall was near or below normal over most of the state, except for a 7 inch total in east central Mississippi, the heavy rains of late December and late January caused excessive releases from Ross Barnett Reservoir with resultant lowland flooding around Jackson, MS, and along the lower Pearl River in Louisiana. This flooding continued from December until January 20th and from the 28th into February.	0	N.A.
	UPPER MISSISSIPPI RIVER BASIN		
Illinois River Basin	Flooding due to an ice jam occurred on the 7th-9th on the Kankakee River with a crest of 1.2 feet over flood stage.	0	N.A.
	MISSOURI BASIN		
Missouri River	An ice jam about 15 miles above Blair, NE, caused lowland flooding upstream the 9th-13th. No reporting stations went over flood stage.	0	N.A.
	OHIO RIVER BASIN		
Upper Ohio Basin	Ice jam flooding was reported on the Allegheny River just above Oil City, PA. No reporting stations were over flood stage. A strong rise on the Monogahela River crested less than a foot below flood stage on the 1st-2d. This resulted from 1.5 to 2 inches of rain on saturated soil. The West Fork River, a headwater tributary of the Monongahela, crested just over flood stage at Clarksburg, WV, with some street and basement flooding reported.	0	N.A.
Little Kanawha River	An average of about 2 inches of rain over the basin December 31-January 1st caused lowland flooding along the Little Kanawha with a crest 2.1 feet over flood stage at Creston, WV, on the 1st. Some secondary roads were blocked.	0	N.A.
Salt and Green River Basins	Rainfall of 2 to 3 inches December 31-January 1st caused some flooding in these basins. Brashears Creek and the Rolling Fork, tributaries of the Salt River,	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	OHIO RIVER BASIN - Cont'd		
	crested 3 feet and 2 feet over flood stage at Taylorsville and Boston, KY, respectively. Minor flooding occurred on the middle Green River, and about 3 feet of flooding on the lower Green. The lower gage at Spottsville was under water and no crest stage was obtained. Additional rainfall of 2 to 3 inches the 25th-26th caused some lowland flooding on the lower Rolling Fork and Green Rivers. No reporting stations went over flood stage.		
Wabash River Basin	Two periods of flooding occurred during January over portions of the basin. The first period resulted from rainfall of 0.5 to 1.5 inches late in December falling on a snow cover of up to 6 inches on frozen ground. Minor flooding with crests less than one foot over flood stage resulted on the lower Embarrass and White Rivers and the East Fork of the White around Seymour, IN. The Little Wabash crested about 2.6 feet over flood stage at Wilcox, IL. The second period of flooding resulted from a major storm which deposited amounts of less than an inch to 1.5 inches over most of the basin with 2.5 inches over the East Fork of the White which crested 1.9 feet over flood stage at Seymour, IN. Extensive lowland flooding was reported around Seymour with some roads closed. Minor flooding occurred on the White River at Anderson and Spencer, IN, and the lower White crested 1.2 to 1.5 feet over flood stage with flooding into February. The main stem of the Wabash failed to reach flood stage. There is usually little damage from this amount of flooding at this season of the year.	0	N.A.
Tennessee River Basin	More than 2 inches of rainfall from the storm of the 25th-26th caused flooding on South Chickamauga Creek with a crest 2.1 feet over flood stage at Chickamauga, TN, on the 27th.	0	N.A.
Lower Ohio River Basin	Heavy inflow from upstream and from the Salt, Green, and Wabash Basins (discussed above) combined to cause light flooding at a number of points on the lower Ohio from Tell City, IN, to Brookport, IL, during the early part of January. This runoff resulted from the major storm system of late December. Crests ranged up to 6.8 feet over flood stage reported at Ford's Ferry, KY.	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

JANUARY 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	WHITE BASIN		
Cache River	Flooding which began early in December continued into January ending on the 18th. Rains of about 1.5 inches on the 2d-3d caused a second crest at Patterson, AR, 1.6 feet over flood stage on the 4th. Rains of 1 to 2 inches across the lower portion of the basin on the 25th caused a rise to above flood stage by the 28th which continued into February.	0	N.A.
White River	Minor flooding occurred at Augusta, AR, as a result of the rains of the 2d-3d.	0	N.A.
	LOWER MISSISSIPPI BASIN		
St. Francis River	The rains of 1 to 2 inches on the 25th caused some minor flooding at St. Frances, AR, on the 26th.	0	N.A.
Big Black River	Rains totaling more than 3 inches in late December and early January caused lowland flooding with a crest 3 feet over flood stage at West, MS, on the 9th. Heavy rains or more than 2 inches the 25th-26th caused another period of flooding on the Upper Big Black with a crest 2 feet over flood stage at West on the 30th.	0	N.A.
	PACIFIC COAST DRAINAGE		
Los Angeles Area	One of the driest rainy seasons on record. Up to the end of January only 0.59 inch of rain had been recorded in downtown Los Angeles. This is comparable to the 1903-04 season when only 0.57 inch fell in a similar period.	0	0
San Francisco Area	The November 1975 through January 1976 period was the driest on record in this area. At San Francisco where records began in 1849 only 0.92 inch was recorded for these three months. The previous record low was in 1917-18 when 2.34 inches fell during this period.	0	0
Oregon Coastal Streams	Rainfall totals for the period 5th-8th ranged from over 4 to nearly 7 inches with the heaviest amounts during the 24 hours ending the morning of the 8th for which period some stations reported 3.5 to 4 inches. The South Fork Coquille crested 5.6 feet over flood stage at Myrtle Point with widespread flooding and the North Fork crested 2 feet over flood stage near Myrtle Point. Minor flooding occurred on the Coquille and tributaries of the Umpqua River which crested at flood stage at Elkton. The Suislaw crested 5.7 feet over flood stage at Mapleton. Damage was primarily to roads at this season of the year and amounted to $59,000. On the 14th-15th amounts up to over 6 inches were reported in the North Coastal area with relatively minor flooding on the Wilson and Nehalem Rivers. Crests	0	106

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	PACIFIC COAST DRAINAGE-Cont'd		
	of 1.3 feet and 0.8 feet over flood stage were reported at Tillamook and Foss respectively. Losses were estimated at $47,000 by the Corps of Engineers.		
Willamette River Basin	The heavy precipitation over the Coastal Range of January 7th-8th (discussed above) also affected the Willamette Basin. Snowmelt was probably a factor in the heavy runoff particularly on streams draining the Cascade Range. The Santiam River crested one foot over flood stage at Jefferson, OR. Crests less than a foot over flood stage occurred on the Luckimute River and Johnson Creek. Strong rises occurred on other streams and the runoff was sufficient to bring the Willamette River 2 feet over flood stage at Harrisburg, OR. The storm of the 14th-15th caused minor flooding along portions of the Tualtin River.	0	938
Coastal Streams in Washington	Flooding occurred on several western Washington streams during January as a result of a surge of warm moisture laden air over the area on the 14th-15th. Freezing levels rose to nearly 10,000 feet, causing heavy snowmelt. The snow depth at Stampede Pass dropped from 100 inches on the 15th to 75 inches on the 17th. Rainfall over the higher elevations was more than 4 inches. The most serious flooding was on the Chehalis River which crested 4.1 feet over flood stage at Centralia. The Snoqualmie crested 2.2 feet over flood stage at Carnation while minor flooding occurred on the Cedar River at Renton and the Snohomish River at Snohomish.	0	N.A.

FLOOD STAGE DATA

JANUARY 1976

River and station	Flood stage	Above flood stages —dates		Crest	
		From	To	Stage	Date
	Ft			Ft	
ATLANTIC SLOPE DRAINAGE-Cont'd					
Schuylkill:					
[illegible], PA	12	[illegible]	26	12.71	26
[illegible], PA	11	[illegible]	27	18.3	2
Pottstown, PA	10	1	11	17.[illegible]	27
Philadelphia, PA	11	25	31	11.17	28
Delaware:					
Easton, PA	20	25	29	22.47	26
Susquehanna:					
Bainbridge, NY	14	2	27 & 28	13.0	27
Conklin, NY	11	2	27 & 28	12.15	27
[illegible]					
[illegible], PA	1	1	2	18.9[illegible]	1
		2	2	17.55	28
[illegible]					
Lick Run, VA	14	1	1	10.6[illegible]	1
[illegible], [illegible]	1	1	1	15.00	2
		27	28	16.[illegible]	28
Richmond, VA (City L)	9	1	2	10.14	
Dan:					
Paces, VA	11	1	2	15.6	2
[illegible]					
Randolph, VA	6	2	2 & 3	6.1	2
[illegible], SC	10	11	12 & 13	10.8	12
		30	1	11.0	Feb 1-12
Tar:					
Tarboro, NC	10	17	17	21.8	17
Greenville, NC	14	31	1	15.7	Feb 1
Neuse:					
Neuse, NC	14	[illegible]	[illegible]	15.[illegible]	30
[illegible], NC	13	3	3	13.3	3
		28	17	16.2	30
Goldsboro, NC	9	28	17 & 18	18.0	Feb 6
Kinston, NC	12	30	31	16.[illegible]	Jan 31
Cape Fear:					
Huske Lock and Dam, NC	4	1	4	44.[illegible]	
		30	30	44.7	31
Elizabethtown, NC	20	3	3	22.1	3
		31	17	23.0	30
Lumber:					
Lumberton, NC	9	27	17 & 18	11.3	Feb 4
Little Pee Dee					
Galivants Ferry, SC	9	5	7	9.6	10
Pee Dee:					
Peedeee, SC	18	4	4	19.4	5
Broad:					
Blair, SC	15	1	2	17.1	1
		2	30	15.7	29
Saluda:					
Pelzer, SC	9	27	28	9.3	27
[illegible]					
[illegible], [illegible]	7	29	29	8.1	29
Savannah:					
Clyo, GA	11	6	13	12.5	16-19
Ogeechee:					
Scarboro, GA	9	11	12	8.0	11-12
EAST GULF OF MEXICO DRAINAGE					
Peachtree Creek:					
[illegible]	13	17	18	17.35	26
Apalachicola:					
Blountstown, FL	11	31	1	14.01	Feb 1

FLOOD STAGE DATA

River and station	Flood stage	Above flood stage -dates		Crest	
		From	To	Feet	Date
Caryville, FL					
Fulton, MS					
Black Warrior:					
Amory, MS				22.2	
Pearl:					
Jackson, MS	15			23.6	
			29	21.4	
	18	Dec	29	18.1 A	
				16.3	
	1		6		
UPPER MISSISSIPPI RIVER BASIN					
Kankakee River:					
Momence, IL			7		
Ohio Basin					
Parker, PA	20				
West Fork:					
Clarksburg, WV			1		1
Little Kanawha:					
Creston, WV			1	22.10	1
Brashears Creek:					
					1
Rolling Fork:					
	35				
Green:					
	12			17.1	
	17			17.56	
	14		11	36.8	
	27		11	30.2	
Spottsville, KY Lower					
Embarras:					
	11			11.5	
East Fork White:					
Seymour, IN				15.86	
White:					
Spencer, IN					
				15.8	
Petersburg, IN					
Little Wabash:					
South Chickamauga Creek:					
Chickamauga, TN	18			10.48 Dec	
				12.1	
Ohio:					
	40				

River and station	Flood stage	Above flood stage -dates		Crest	
		From	To	Feet	Date
EAST GULF OF MEXICO DRAINAGE-Contd					
Ohio-Continued:					
				25.0	
				42.4	
				38.0	
				21.1	
				37.9	
White Basin					
Cache:					
Patterson, AR				8.6	
				8.2	
St. Francis:					
St. Francis, AR					
Big Black					
West, MS					
PACIFIC SLOPE DRAINAGE					
South Fork Coquille:					
Myrtle Point, OR					
Coquille:					
Coquille, OR					
Elkton, OR					
Siuslaw					
Wilson:					
					1
Santiam:					
Jefferson, OR					
Luckiamute:					
Tualatin:					
Dilley, OR				17.7	
Farmington, OR				29.0	
Johnson Creek:					
Sycamore, OR					
Willamette:					
Harrisburg, OR					
Chehalis:					
Centralia, WA					
Cedar:					
Carnation, WA					
Snohomish:					

A See Previous Monthly Reports for Additional Crest Information.

RAWINSONDE DATA

Average monthly values

JANUARY 1976

ALBANY, NY — 1009 MB

Pressure (mb)	No. observations	Distance, height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction (tens of deg)	Resultant Wind: Speed (mps)
SFC	31	86	-10.6	-14.6	28	2.2
950	31	175	-11.1	-14.9	27	2.0
900	31	547	-10.0	-12.8	27	5.1
850	31	969	-9.8	-13.0	28	8.3
800	31	1,405	-10.1	-15.3	28	10.9
750	31	1,858	-10.8	-17.3	28	12.4
700	31	2,329	-11.6	-20.9	27	13.9
650	31	2,895	-13.5	-23.3	27	16.1
600	31	3,456	-16.4	-26.8	26	18.1
550	31	4,060	-19.4	-30.3	26	20.5
500	31	4,697	-23.1	-33.5	26	22.9
450	31	5,389	-27.2	-35.1	26	26.0
400	31	6,141	-31.9	-40.1	26	29.5
350	31	6,963	-37.6	-41.7	26	31.9
300	31	7,885	-43.7	-44.6	26	33.6
250	31	8,894	-50.1		26	37.5
200	31	10,071	-55.1		26	36.5
150	31	11,490	-56.4		27	32.5
100	31	13,340	-55.5		26	30.9
70	31	14,784	-55.3		26	29.1
50	31	16,484	-57.0		26	28.0
30	31	18,598	-58.7		26	27.9
20	31	20,304	-59.0		25	25.1
10	31	23,132	-59.3		26	24.1
7	31	25,132	-58.9		26	22.4
5	31	27,243	-58.9		26	22.4
3	31	30,042	-59.8		26	23.0
2	31	31,642	-58.0		26	22.1
1	31	33,477	-55.3		26	21.7
.7	31	34,837	-55.6		25	21.0
.5	31	36,060	-54.6		25	20.5
.3	31	37,943	-50.0		26	19.6
.2	31	39,656	-45.4			
.1	31	41,369	-40.8			

ALBUQUERQUE, NM — 846 MB

Pressure (mb)	No. observations	Distance, height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction (tens of deg)	Resultant Wind: Speed (mps)
850	31	1,619	-4.6	-9.6	36	1.8
800	31	2,018	-.2	-13.0	32	3.8
750	31	2,533	-2.3	-14.8	31	5.4
700	31	3,079	-4.1	-17.5	30	7.4
650	31	3,660	-6.9	-21.5	30	10.0
600	31	4,281	-10.2	-25.2	30	10.9
550	31	4,946	-14.3	-30.5	30	12.1
500	31	5,662	-18.9	-33.9	30	14.1
450	31	6,438	-24.6	-38.5	29	15.0
400	31	7,285	-30.9	-44.1	29	16.4
350	31	8,221	-38.1	-48.8		16.7
300	31	9,261	-46.4		29	17.8
250	31	10,449	-54.9			20.1
200	31	11,856	-60.3		29	
150	31	13,643	-61.0		28	20.9
100	31	16,110	-64.0		28	19.7
70	31	17,974	-64.2		28	18.8
50	31	19,241	-62.8		29	16.7
30	31	20,372	-61.		29	12.9
20	31	21,765	-59.2		29	9.4
10	31	23,578	-56.3		29	6.7
7	31	24,741	-54.6		29	5.3
5	31	26,177	-53.2		27	6.8
3	31	28,038	-50.5		26	7.0
2	31	29,219	-49.6		26	9.9
1	31	30,407	-48.6		26	11.2
.7	31	31,095	-2.7	-11.7	3	2.7
.5	31	31,983	1.5	-12.7	34	6.2
.3	31	33,049	-3.5	-18.1	29	9.0
.2	31	33,631	-6.8	-19.9	29	10.5
.1	31	34,251	-10.5	-23.9	28	12.3
.07	31	34,916	-14.4	-28.9	29	14.5
.05	31	35,631	-19.7	-34.1	29	16.5
.03	31	36,405	-25.4	-38.4	29	18.3
.02	31	37,248	-32.0	-44.2	29	19.8
.01	31	38,188	-38.8	-49.1	29	20.6
.007	31	39,219	-46.6		29	22.1
.005	31	40,407	-54.9		29	23.7
.003	31	41,813	-60.6		28	25.5
.002	31	43,643	-61.0		28	23.7
.001	31	46,736	-61.9		28	24.6
.0007	31	49,110	-64.0		28	21.1
.0005	31	51,474	-64.2		28	18.1
.0003	31	54,372	-63.6		29	13.4
.0002	31	57,707	-62.7		29	10.6
.0001	31	61,581	-62.		28	8.9
.00007	31	66,110	-61.		28	7.7
.00005	31	71,403	-59.9		28	6.8
.00003	31	77,578	-58.6		29	7.0
.00002	31	84,777	-57.2		29	8.1
.00001	31	93,170	-55.7		29	9.1

AMARILLO, TX — 893 MB

Pressure (mb)	No. observations	Distance, height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction (tens of deg)	Resultant Wind: Speed (mps)
850	31	1,095	-2.7	-11.7	3	2.7
800	31	1,494	2.0	-11.0	31	5.3
750	31	1,983	1.5	-12.7	33	6.2
700	31	2,501	-.8	-14.9	30	7.4
650	31	3,049	-3.5	-18.1	29	9.0
600	31	3,631	-6.8	-19.9	29	10.5
550	31	4,251	-10.5	-23.9	28	12.3
500	31	4,916	-14.4	-28.9	29	14.5
450	31	5,631	-19.7	-34.1	29	16.5
400	31	6,405	-25.4	-38.4	29	18.3
350	31	7,248	-32.0	-44.2	29	19.8
300	31	8,188	-38.8	-49.1	29	20.6
250	31	9,219	-46.6		29	22.1
200	31	10,407	-54.9		29	23.7
150	31	11,813	-60.6		28	25.5
100	31	12,643	-61.0		28	23.7
70	31	13,604	-60.4		28	24.6
50	31	14,736	-61.9		28	21.1
30	31	16,110	-64.0		28	18.1
20	31	17,474	-64.2		28	15.6
10	31	19,273	-63.1		29	12.9
7	31	20,372	-61.		29	9.4
5	31	21,765	-59.2		29	6.7
3	31	23,578	-56.3		29	5.3
2	31	24,741	-54.6		29	6.8
1	31	26,177	-53.2		27	7.7
.7	31	28,038	-50.5		26	9.9
.5	31	29,219	-49.6		26	11.2
.3	31	30,407	-48.6		26	12.4
.2	31	31,095	-47.8		26	13.2
.1	31	31,983	-46.8		26	14.2
.07	31	33,049	-45.8		26	15.2
.05	31	34,251	-44.8		26	16.2
.03	31	35,631	-43.8		26	17.2
.02	31	37,248	-42.8		26	18.2
.01	31	39,219	-41.8		26	19.2
.007	31	41,813	-40.8		26	20.2
.005	31	44,916	-39.8		26	21.2
.003	31	49,110	-38.8		26	22.2
.002	31	54,372	-37.8		26	23.2
.001	31	61,581	-36.8		26	24.2
.0007	31	66,110	-35.8		26	25.2
.0005	31	71,403	-34.8		26	26.2
.0003	31	77,578	-33.8		26	27.2
.0002	31	84,777	-32.8		26	28.2
.0001	31	93,170	-31.8		26	29.2

ANCHORAGE, AK — 997 MB

Pressure (mb)	No. observations	Distance, height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction (tens of deg)	Resultant Wind: Speed (mps)
990	29	45	-7.7	-12.7	02	.6
950	29	400	-9.7	-14.9	04	1.0
900	29	818	-5.5	-12.3	05	1.9
850	29	844	-5.7	-12.9	10	2.5
800	29	1,290	-8.1	-14.3	13	2.9
750	29	1,759	-10.6	-16.6	15	3.8
700	29	2,253	-13.3	-20.4	15	5.5
650	29	2,775	-16.6	-24.4	16	5.2
600	29	3,328	-20.2	-28.2	17	4.6
550	29	3,917	-24.1	-32.9	19	4.2
500	29	4,546	-28.3	-38.0	19	4.2
450	29	5,224	-32.7	-42.8	20	4.4
400	29	5,958	-37.6	-46.0	22	5.4
350	29	6,762	-43.0	-48.1	23	5.4
300	29	7,655	-48.1		23	7.2
250	29	8,658	-52.1		24	8.8
200	29	9,833	-53.9		24	9.6
150	29	11,269	-52.8		25	12.1
100	29	12,132	-52.6		25	13.7
70	29	13,127	-52.9		26	15.3
50	29	14,304	-53.3		26	16.8
30	29	15,736	-54.5		26	18.3
20	29	17,166	-56.0		27	20.2
10	29	19,009	-56.3		27	22.3
7	29	19,988	-56.7		28	24.0
5	28	20,153	-56.9		28	26.7
3	28	20,567	-57.6		28	28.7
2	24	23,383	-58.6		28	32.2
1	20	24,564	-58.0		29	33.7
.7	11	25,109	-54.2		29	31.7
.5						
.3						
.2						
.1						
.07						
.05						
.03						
.02						
.01						
.007						
.005						
.003						
.002						
.001						
.0007						
.0005						
.0003						
.0002						
.0001						

ANNETTE, AK — 1007 MB

Pressure (mb)	No. observations	Distance, height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction (tens of deg)	Resultant Wind: Speed (mps)
1000	31	37	3.4	.3	14	2.9
950	24	130	2.7	-1.0	13	4.2
900	31	508	-.4	-2.2	14	5.5
850	31	940	-2.3	-4.5	17	5.9
800	31	1,392	-4.7	-7.7	20	7.0
750	31	1,868	-6.8	-11.4	21	7.9
700	31	2,369	-9.6	-16.1	23	9.2
650	31	2,904	-12.2	-19.3	23	8.9
600	31	3,463	-15.5	-22.1	23	8.4
550	31	4,064	-18.6	-26.0	23	9.9
500	31	4,707	-22.0	-29.4	23	11.4
450	31	5,399	-27.5	-33.7	24	12.1
400	22	6,150	-32.0	-37.2	24	13.3
350	31	6,969	-38.5	-40.0	24	15.9
300	31	7,878	-44.9	-44.1	25	13.8
250	31	8,891	-50.8		26	16.7
200	31	10,064	-55.7		27	15.9
150	31	11,478	-57.5		27	19.4
100	31	13,322	-56.7		28	21.3
70	31	14,977	-56.0		29	20.5
50	31	16,882	-57.9		29	20.1
30	31	17,234	-60.0		29	21.5
20	31	18,994	-59.8		30	20.5
10	31	19,055	-60.6		30	22.1
7	31	20,195	-61.6		30	23.6
5	31	21,651	-61.5			
3	31	23,459	-61.0			
2	31	24,644	-61.1			
1	31					
.7	31					
.5	31					
.3	31					
.2	31					
.1	31					
.07	31					
.05	31					
.03	31					
.02	31					
.01	31					
.007	31					
.005	31					
.003	31					
.002	31					
.001	31					
.0007	31					
.0005	31					
.0003	31					
.0002	31					
.0001	31					

ATHENS, [illegible] — 993 MB

Pressure (mb)	No. observations	Distance, height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction (tens of deg)	Resultant Wind: Speed (mps)
SFC	31	[illegible]	-.2	-4.4	28	1.7
950	31	297	-1.2	-15.2		
900	31	[illegible]	2.3	-6.3	27	5.9
850	31	1,026	2.2	-10.1	28	7.8
800	31	1,487	1.6	-12.6	27	10.0
750	31	1,975	.7	-14.0	27	11.7
700	31	2,492	-1.2	-15.9	27	14.2
650	31	3,039	-3.6	-17.9	27	17.3
600	31	3,622	-6.7	-20.0	27	19.5
550	31	4,243	-10.1	-25.0	27	21.4
500	31	[illegible]	-14.4	-28.5	27	23.3
450	31	5,624	-19.4	-33.5	27	25.9
400	31	6,400	-24.5	-37.3	27	29.4
350	31	7,246	-31.2	-42.7	27	32.5
300	31	[illegible]	-38.2	-47.6	27	36.5
250	31	9,222	-45.8		27	40.4
200	31	10,415	-53.5		27	43.9
150	31	11,829	-59.3		27	44.6
100	31	13,665	-59.7		27	42.5
70	31	13,629	-60.2		27	39.7
50	31	[illegible]	-62.2		26	33.3
30	31	16,130	-64.8		26	28.5
20	31	17,485	-65.4		27	23.1
10	31	18,298	-64.9		27	19.2
7	31	19,242	-63.7		27	15.2
5	27	20,365	-61.9		27	12.2
3	24	21,752	-59.9		27	9.7
2	23	24,723	-54.1		27	8.6
1	23	28,160	-51.9		26	7.2
.7	14	28,032	-49.5		26	[illegible]
.5	14	30,715	-44.4			
.3						
.2						
.1						
.07						
.05						
.03						
.02						
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BARROW, AK — 1018 MB

Pressure (mb)	No. observations	Distance, height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction (tens of deg)	Resultant Wind: Speed (mps)
1000	31	9	-28.5	-30.8	06	1.5
950	31	148	-24.5	-26.1	06	2.1
900	31	513	-20.5	-23.7	05	2.8
850	31	916	-18.3	-24.4	05	2.7
800	31	1,342	-18.	-25.6	05	2.9
750	31	1,794	-19.7	-27.9	05	2.9
700	31	2,271	-21.4	-30.1	04	2.6
650	31	2,778	-23.7	-33.1	04	2.1
600	31	3,317	-26.1	-35.2	36	2.0
550	31	3,892	-29.4	-38.5	32	2.3
500	31	4,509	-33.0	-41.1	29	3.4
450	31	5,173	-37.4	-44.4	29	3.9
400	31	5,894	-42.2	-47.1	29	4.2
350	31	6,698	-47.6		28	5.5
300	31	7,555	-53.4		27	6.9
250	31	8,534	-58.2		27	7.9
200	31	9,671	-61.1		27	8.0
150	31	11,058	-60.5		27	10.4
100	31	11,892	-59.9		27	12.9
70	31	12,855	-60.2		27	13.3
50	31	14,002	-60.8		27	15.9
30	31	15,387	-62.1		27	20.1
20	31	16,750	-63.2		27	23.8
10	31	18,555	-63.4		27	25.7
7	31	19,586	-63.5		27	29.1
5	27	19,817	-62.8		27	30.7
3	25	21,233	-61.9		27	34.1
2	24	23,031	-63.6			
1	23	[illegible]				
.7	23	[illegible]				
.5	23	[illegible]				
.3	23	[illegible]				
.2	23	[illegible]				
.1	23	[illegible]				
.07	23	[illegible]				
.05	23	[illegible]				
.03	23	[illegible]				
.02	23	[illegible]				
.01	23	[illegible]				
.007	23	[illegible]				
.005	23	[illegible]				
.003	23	[illegible]				
.002	23	[illegible]				
.001	23	[illegible]				
.0007	23	[illegible]				
.0005	23	[illegible]				
.0003	23	[illegible]				
.0002	23	[illegible]				
.0001	23	[illegible]				

BARTER ISLAND, AK — 1012 MB

Pressure (mb)	No. observations	Distance, height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction (tens of deg)	Resultant Wind: Speed (mps)
1000	29	15	-31.1	-32.7	28	2.7
950	29	125	-31.1	-32.5	31	1.3
900	29	467	-25.8	-27.0	36	1.2
850	29	862	-21.9	-24.8	34	1.3
800	29	1,284	-21.1	-25.4	35	1.5
750	29	1,732	-21.3	-25.8	35	2.4
700	29	2,207	-22.7	-27.7	32	3.3
650	29	2,712	-24.2	-29.9	31	4.9
600	29	3,250	-26.6	-31.7	30	5.7
550	29	3,824	-30.0	-35.2	29	7.2
500	29	4,439	-33.9	-39.1	29	9.0
450	29	5,101	-38.3	-42.0	29	10.9
400	29	5,819	-42.8		28	12.9
350	29	6,605	-47.5		28	16.6
300	29	7,481	-52.4		28	19.1
250	29	8,463	-57.7		28	21.2
200	29	9,605	-60.4		28	21.8
150	29	10,998	-59.3		27	19.7
100	29	11,834	-59.4		27	20.6
70	29	12,798	-60.0		27	21.4
50	29	13,940	-60.8		27	23.9
30	29	15,324	-62.1		28	27.0
20	29	16,719	-63.3		28	32.4
10	29	17,538	-64.0		28	33.8
7	29	18,480	-65.1		28	37.7
5	29	19,667	-63.5		28	40.8
3	28	21,105	-63.5		28	46.3
2	28	23,041	-61.		29	51.9
1	24	24,175	-61.0		28	58.3
.7	12	25,581	-61.			
.5	9	27,403	-59.9			
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BETHEL, AK — 997 MB

Pressure (mb)	No. observations	Distance, height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction (tens of deg)	Resultant Wind: Speed (mps)
990	31	39	-17.3	-20.6	02	4.6
950	31	414	-15.7	-18.5	02	4.1
900	31	806	-9.9	-14.1	05	4.3
850	31	822	-9.3	-14.8	06	2.5
800	31	1,264	-9.9	-16.6	08	1.2
750	31	1,731	-11.3	-19.5	10	1.3
700	31	2,224	-13.5	-22.5	11	1.3
650	31	2,746	-16.3	-26.1	17	1.0
600	31	3,300	-19.5	-30.0	20	1.3
550	31	3,891	-23.1	-33.5	19	1.7
500	31	4,523	-27.4	-36.9	20	2.2
450	31	5,202	-31.9	-41.2	19	2.5
400	31	5,940	-36.5	-43.8	20	2.8
350	31	6,747	-42.2	-44.2	20	3.5
300	31	7,641	-48.0		21	4.3
250	31	8,643	-52.5		23	5.2
200	31	9,813	-55.2		23	6.0
150	31	11,244	-53.0		24	7.1
100	31	12,108	-52.7		24	8.2
70	31	13,103	-51.8		25	9.7
50	30	14,454	-52.2		25	10.3
30	30	15,863	-54.1		26	12.3
20	30	17,261	-56.0		26	13.8
10	30	18,106	-58.3		26	14.8
7	30	19,082	-58.7		27	16.4
5	30	20,229	-59.5		27	17.3
3	29	21,632	-58.8		27	19.2
2	26	23,433	-58.7		27	20.3
1	24	24,579	-58.7		27	21.7
.7	22	26,076	-55.1		25	23.0
.5	10	28,135	-51.7		28	23.8
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BISMARCK, ND — 957 MB

Pressure (mb)	No. observations	Distance, height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction (tens of deg)	Resultant Wind: Speed (mps)
SFC	31	503	-11.9	-14.9	30	2.1
950	25	578	-12.9	-15.2	31	3.1
900	31	973	-8.0	-11.7	30	8.6
850	31	1,418	-8.9	-13.8	31	11.2
800	31	1,889	-8.9	-15.8	31	13.4
750	31	2,387	-11.	-18.1	31	15.1
700	31	2,914	-13.8	-20.5	31	16.4
650	31	3,474	-16.4	-24.3	31	17.4
600	31	4,073	-19.8	-29.0	31	18.5
550	31	4,713	-23.9	-33.1	31	20.7
500	31	5,403	-28.5	-37.5	31	21.8
450	31	6,149	-33.7	-41.2	31	22.8
400	31	6,965	-39.7	-42.1	31	24.2
350	31	7,869	-45.8		31	25.3
300	31	8,879	-51.3		31	27.3
250	31	10,051	-55.8		31	29.3
200	31	11,466	-57.0		30	27.9
150	31	12,913	-56.3		30	26.5
100	31	13,294	-56.2		30	25.3
70	31	14,454	-56.8		30	23.9
50	31	15,863	-58.1		30	23.1
30	31	17,261	-59.0		30	21.6
20	31	18,106	-58.3		29	19.5
10	31	19,082	-58.7		29	19.5
7	31	19,229	-59.5		29	20.4
5	31	20,229	-59.5		29	20.1
3	31	21,632	-58.8		29	22.7
2	31	23,433	-58.7		29	24.7
1	31	25,999	-56.2		29	30.1
.7	31	27,826	-55.8			
.5	31	29,690	-45.1			
.3						
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[illegible] — 988 MB

Pressure (mb)	No. observations	Distance, height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction (tens of deg)	Resultant Wind: Speed (mps)
SFC	31	871	-1.8	-4.5	13	2.1
950						
900	31	1,078	-.3	-4.6	13	1.9
850	31	1,535	-1.0	-6.6	26	1.7
800	31	2,018	-2.1	-9.4	29	4.7
750	31	2,530	-3.9	-12.1	31	7.4
700	31	3,072	-6.6	-15.3	30	9.7
650	31	3,648	-9.5	-18.4	30	10.7
600	31	4,262	-13.0	-21.8	31	11.5
550	31	4,921	-16.8	-25.9	30	14.4
500	31	5,630	-21.3	-30.4	30	16.0
450	31	6,400	-26.4	-35.7	30	19.
400	31	7,240	-32.8	-42.3	30	20.2
350	31	8,173	-40.3	-47.3	30	23.0
300	31	9,199	-48.3		30	24.8
250	31	10,378	-56.3		31	27.8
200	31	11,775	-61.6		30	26.3
150	31	12,604	-60.8		30	23.3
100	31	13,[illegible]	-58.9		30	21.3
70	31	14,711	-59.5		30	22.0
50	31	16,098	-61.9		30	17.9
30	31	17,468	-62.0		30	16.0
20	31	18,294	-62.0		30	14.6
10	31	[illegible]	-60.7		30	13.5
7	31	20,401	-59.3		30	11.3
5	31	21,801	-58.9		31	12.1
3	31	23,628	-58.1		31	12.1
2	31	24,777	-57.6		31	14.0
1	30	26,171	-57.5		31	17.7
.7	29	27,970	-57.7		30	19.6
.5	9	30,617

RAWINSONDE DATA

Average monthly values

JANUARY 1975

CARIBOU, ME — 99 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	141	-16.2	-20.8	28	1.7
1000	31	045	-22.1	-25.6	26	
950	31	511	-13.9	-16.6	28	3.5
900	31	912	-13.7	-17.4	26	5.4
850	31	1,346	-14.0	-18.3	27	7.1
800	31	1,817	-14.0	-18.8	25	7.9
750	31	2,306	-15.1	-20.1	24	12.4
700	31	2,817	-16.8	-23.4	24	14.9
650	31	3,371	-19.0	-25.5	24	16.9
600	31	3,964	-22.2	-28.8	25	19.2
550	31	4,599	-26.0	-32.5	25	21.7
500	31	5,293	-30.2	-35.1	25	24.7
450	30	6,026	-35.1	-39.9	25	25.7
400	30	6,819	-40.2	-42.1	25	28.9
350	30	7,741	-46.3		25	32.4
300	30	8,750	-48.3		25	34.7
250	29	9,935	-54.0		26	35.2
200	28	11,365	-55.6		26	33.3
175	28	12,217	-55.5		26	31.7
150	28	13,211	-55.3		25	28.6
125	27	14,393	-55.9		25	25.4
100	16	15,791	-56.6		25	26.8
90	16	17,195	-57.9		25	24.7
70	16	18,966	-58.4		25	23.9
60	16	19,866	-58.7		25	23.5
50	16	20,149	-58.9		25	23.7
40	16	21,553	-58.0		25	24.7
30	16	23,368	-57.9		25	27.1
25	17	24,500	-57.9		25	27.1
20	16	25,900	-56.7		25	31.4
15	9	27,791	-55.5		22	28.0
10					18	30.7
7					7	33.2

CENTRE, LEE AI — 987 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	140	.9	-4.8	31	1.1
1000	31	206	.5	-6.4	31	1.6
950	31	608	3.1	-4.3	31	4.1
900	31	1,046	2.2	-3.7	31	6.9
850	31	1,506	2.2	-10.6	31	8.0
800	31	1,998	1.1	-13.3	31	10.7
750	31	2,516	-.6	-14.4	31	13.4
700	31	3,064	-2.9	-18.5	31	15.8
650	31	3,648	-6.0	-22.1	31	18.1
600	31	4,277	-9.2	-25.4	31	20.5
550	31	4,938	-13.5	-28.3	31	22.9
500	31	5,656	-18.6	-32.8	31	25.8
450	30	6,433	-24.1	-37.5	31	28.3
400	30	6,859	-29.9	-40.8	31	31.3
350	30	8,222	-37.6	-48.4	31	33.3
300	30	9,268	-44.8		31	37.9
250	29	10,464	-53.4		31	40.5
200	28	11,876	-60.2		31	41.1
175	28	12,707	-60.7		31	39.3
150	28	13,667	-60.8		31	36.4
125	27	14,798	-62.9		31	31.9
100	16	16,163	-65.8		31	26.5
90	16	17,517	-65.8		31	19.7
70	16	19,288	-65.8		31	17.3
60	16	20,288	-64.2		31	13.8
50	16	21,393	-61.8		31	9.2
40	16	21,779	-59.1		31	7.8
30	16	23,589	-57.1		31	6.9
25	17	24,752	-54.5		31	6.5
20	16	26,189	-52.4		31	7.3
15	9	28,053	-49.9		31	8.1
10		30,774	-42.8		31	10.5
7		33,243	-39.0			

CHARLESTON, SC — 1020 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	13	4.2	-.8	31	2.5
1000	31	175	6.9	.. .9	31	3.1
950	31	587	6.2	-1.4	31	6.0
900	31	1,040	5..	-5..	31	8.2
850	31	1,506	4.0	-8.1	31	10.7
800	31	1,998	2..	-...	31	11.8
750	31	2,516	...	-14.8	31	13.8
700	31	3,067	-2.1	-18.6	31	16.1
650	31	3,652	-5..	-...	31	18.3
600	31	4,277	-8.5	-25.4	31	20.8
550	31	4,947	-12..	-29.0	31	22.3
500	31	5,667	-17.8	-32.3	31	24.8
450	31	6,446	-23.3	-36.8	31	27.1
400	31	7,284	-29..	-40.8	31	30.9
350	31	8,235	-36.7	-46.8	31	33.6
300	31	9,283	-44.3		31	38.1
250	31	10,483	-52.4		31	41.6
200	31	11,901	-59.3		31	42.0
175	31	12,736	-59.8		31	42.0
150	31	13,697	-60.8		31	38.0
125	31	14,827	-62.5		31	32.8
100	31	16,194	-65.4		31	28.1
90	31	17,547	-66.6		31	22.8
70	31	19,387	-65..		31	18.4
60	31	19,301	-63.1		31	14.5
50	31	20,...	-61.3		31	11.3
40	31	21,819	-58..		31	8.5
30	31	23,641	-55..		31	6.3
25	31	24,812	-52..		31	6.2
20	31	26,261	-49.9		31	6.3
15	31	28,178	-47..		31	6.5
10	31	30,770	-44..			

CHATHAM, MA — 1024 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	48	-2.3	-3..	28	2..
1000	29	136	-2.8	-7..	28	3.3
950	31	554	-4.0	-7.8	27	7..
900	31	994	-5.4	-12.5	27	9.0
850	31	1,407	-6.5	-15.0	27	11.0
800	31	1,881	-7.1	-18..	26	13.1
750	31	2,383	-8.3	-19.7	26	14.7
700	31	2,916	-10.8	-22.1	26	16.6
650	31	3,483	-13.8	-24..	26	19.1
600	31	4,088	-17.1	-26..	26	21.7
550	31	4,735	-20.9	-29..	26	23..
500	31	5,433	-25.7	-33..	26	25.8
450	31	6,189	-30.5	-37..	26	28..
400	31	7,017	-36.1	-44..	26	29.9
350	31	7,935	-41.9	-44..	26	31.9
300	31	8,956	-48.4		26	34..
250	30	10,141	-54.0		25	34..
200	30	11,557	-56.8		26	35..
175	30	12,398	-56.5		26	35.3
150	30	13,377	-56.1		26	33..
125	29	14,526	-57..		26	30.6
100	28	15,928	-58.5		25	28..
90	28	17,328	-59.4		25	24..
70	25	18,164	-59.5		25	23.6
60	25	19,129	-59.4		25	21.8
50	25	20,268	-58.4		25	21.7
40	25	21,674	-57.5		25	21..
30	25	23,500	-55.0		25	21..
25	25	24,869	-54.8		25	19..
20	24	26,117	-54.7		24	20..
15	12	27,933	-51.8			

COLD BAY, AK — 992 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	30	30	-8.1	-9.6	30	.6
1000	30	85	-9..	-9.6	30	.5
950	30	371	-3.1	-6.3	30	..
900	30	798	-5.3	-...	30	..
850	30	1,245	-7.5	-13.3	30	..
800	30	1,716	-9.0	-16.2	30	..
750	30	2,212	-11.9	-19.9	30	..
700	30	2,738	-14.3	-23.2	29	..
650	30	3,296	-17..	-26.4	29	..
600	30	3,891	-21.2	-...	29	..
550	30	4,528	-25.4	-...	29	..
500	30	5,213	-30.0	-...	29	..
450	30	5,955	-35.2	-...	29	..
400	30	6,767	-...	-...	29	..
350	30	7,669	-40.2		28	..
300	30	8,679	-51.2		28	..
250	30	9,856	-52.8		28	..
200	30	11,302	-51.2		28	..
175	30	12,172	-50.3		28	..
150	30	13,179	-50.0		28	..
125	30	14,...	-50.0		28	..
100	30	15,829	-50.9		28	..
90	30	17,277	-51..		28	..
70	30	18,146	-51.4		28	..
60	30	19,147	-...		28	..
50	30	20,323	-52..		28	..
40	30	21,780	-51.5		28	..
30	30	23,...	-52.3		28	..
25	30	24,805	-52.6		28	..
20	30	26,247	-...		28	..
15	30	28,113	-...		28	..
10	30	30,802	-...			

DAYTON, OH — 934 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	.49	-5.6	-8.4	25	..8
1000						
950	31	569	-6.6	-9.3	28	5.5
900	31	994	-6.5	-11.6	26	9.2
850	31	1,438	-7.2	-16.3	27	11.1
800	31	1,910	-7.7	-17.4	27	13.3
750	31	2,411	-9.5	-19.8	27	13.9
700	31	2,942	-11.8	-22.3	27	15.4
650	31	3,507	-14.5	-26.1	27	18.3
600	31	4,110	-17.5	-27.3	27	20.9
550	31	4,757	-21.6	-31.9	27	23.4
500	31	5,453	-26.9	-35.8	27	26.4
450	31	6,208	-30.9	-40.4	27	30.2
400	31	7,034	-36.9	-43.1	27	31.5
350	31	7,949	-42.6	-47.3	27	33.4
300	31	8,973	-49.0		27	35.9
250	31	10,153	-55.0		27	38.0
200	31	11,570	-57.3		27	35.7
175	31	12,416	-56.1		27	34.3
150	30	13,394	-56.7		27	33.0
125	30	14,550	-58.3		27	28.4
100	26	15,950	-59.8		27	25.7
90	26	17,340	-60.3		27	22.6
70	24	18,172	-60.8		27	17.4
60	24	19,133	-60.4		27	15.9
50	24	20,074	-60.1		27	15.7
40	24	21,684	-58.8		28	12.3
30	19	23,524	-55.5		27	9.8
25	19	24,688	-53.8		24	7.7
20	18	26,099	-53.8		21	6.2
15	9	27,999	-49.9		16	4.1
10	9	30,638	-48.9		7	

MEL RIDD, TX — 985 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	314	4.6	-1.5	04	1.1
1000						
950	31	668	7.9	-2.1	15	1.6
900	31	1,055	8.0	-5.1	20	2.6
850	31	1,526	8.0	-6.4	23	4..
800	31	2,025	6.7	-8.5	26	4.7
750	31	2,553	4.4	-12.6	27	6.0
700	31	3,112	1.6	-14.6	27	7.9
650	31	3,705	-2.0	-17.5	27	9.4
600	31	4,336	-6.2	-21.2	27	10.9
550	31	5,011	-10.6	-26.3	27	12.5
500	31	5,737	-15.6	-31.5	27	14.6
450	31	6,524	-21.2	-35.7	27	16.3
400	31	7,382	-27.9	-40.3	26	19.6
350	31	8,329	-35.3	-46.4	26	22.1
300	31	9,381	-43.8		26	25.5
250	31	10,580	-53.1		26	28.7
200	31	11,994	-60.8		26	32.8
175	31	12,817	-63.3		26	30.6
150	31	13,767	-62.8		26	27.7
125	31	14,888	-64.1		26	24.7
100	26	16,246	-67.1		26	21..
90	26	17,584	-68.2		27	17.9
70	30	18,388	-66.9		27	14.1
60	29	19,322	-65.6		27	10.5
50	29	20,293	-60.2		27	8.3
40	28	21,822	-60.2		28	5.9
30	27	23,635	-56.1		28	4.1
25	24	24,807	-53.6		27	3.4
20	21	26,284	-51.3		32	2.1
15	16	28,153	-49.1		26	4.1
10	7	30,839	-45.4			

DENVER, CO — 838 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	1,611	-4..	-10.4	22	2.1
1000						
950						
900	31	1,982	.5	-14.1	28	4.1
850	31	2,397	-2.5	-16.9	30	6.7
800	31	3,041	-6.5	-19.3	31	8.6
750	31	3,616	-11..	-21.2	31	10.4
700	31	4,229	-13..	-25.1	31	12.6
650	31	4,886	-17.6	-29.4	31	14.5
600	31	5,593	-22.0	-34.2	31	16.2
550	31	6,357	-28.1	-38.8	31	17.8
500	31	7,192	-34.4	-45.2	31	19.8
450	31	8,115	-41.3	-50.0	31	21.4
400	31	9,143	-48.2		31	23.4
350	31	10,324	-55.3		30	23.0
300	30	11,730	-60.0		30	22.9
250	30	12,564	-59.6		29	21.1
200	30	13,533	-58.6		30	20.3
175	29	14,674	-59.3		29	19.6
150	29	16,066	-61.3		29	15.7
125	29	17,444	-61.9		29	13.6
100	30	18,271	-61.3		30	11.5
90	30	19,231	-60.3		30	10.0
70	30	20,369	-59.8		30	9.1
60	30	21,775	-58.8		30	8.3
50	30	23,588	-57.1		31	7.9
40	30	24,754	-56.3		31	9.5
30	30	26,186	-54.4		30	9.6
25	30	28,047	-53.4		30	10.2

DODGE CITY, KS — 928 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	791	-.9	-9.8	30	2..
1000						
950	31	1,030	.1	-9.1	32	4.6
900	31	1,490	1.1	-12.1	33	8.0
850	31	1,976	-.9	-14.1	32	8.9
800	31	2,489	-3.7	-16..	32	9.7
750	31	3,031	-6.5	-19..	31	11.5
700	31	3,606	-9.9	-21.8	30	13.0
650	31	4,220	-13.6	-25.3	30	14.1
600	31	4,876	-17.6	-30..	29	16.5
550	31	5,583	-22.5	-34..	29	18.8
500	31	6,349	-27.6	-38.9	29	19.9
450	31	7,185	-33.7	-44.1	29	21.9
400	31	8,111	-40.7	-48.5	29	23.2
350	31	9,141	-48.0		29	25.3
300	31	10,325	-54.9		29	26.1
250	31	11,733	-59.5		28	27.6
200	31	12,569	-59.3		28	26.1
175	31	13,535	-59.0		28	24.6
150	31	14,677	-60.0		28	20.8
125	30	16,061	-62.8		29	18.4
100	30	17,433	-63.2		29	14.2
90	30	18,256	-61.9		28	12.1
70	30	19,211	-61.7		28	11.5
60	29	20,241	-60.3		29	10.3
50	29	21,740	-59.0		29	10.0
40	29	23,552	-57.1		29	9.1
30	28	24,712	-55.7		28	9.6
25	28	26,146	-54.2		28	10.5
20	28	27,801	-53.8		29	13.2
15	18	28,001	-53.8			
10	10	30,662	-49.6			

EL PASO, TX — 886 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	1,529	5.2	-10.3	31	..
1000						
950	31	1,590	5..	-12.2	31	..
900	31	1,644	..	-13.8	30	..
850	31	3,098	-...	-10.7	31	..
800	31	3,685	-4..		31	..
750	31	4,311	-8.0	-...	31	..
700	31	4,982	-...		31	..
650	31	5,704	-17..	-...	31	..
600	31	6,484	-23..	-...	31	..
550	31	7,333	-29.9	-...	31	..
500	31	8,273	-37.2	-...	30	..
450	31	9,317	-45.5	-...	28	..
400	31	10,510	-...	-...	28	..
350	31	11,915	-61.6	-...	28	..
300	31	12,741	-62.6	-...	28	..
250	31	13,692	-62.1	-...	28	..
200	31	14,816	-63.9	-...	28	..
175	31	15,416	-66.2	-...	28	..
150	31	16,174	-66.2	-...	28	..
125	31	17,522	-67.0	-...	28	..
100	31	18,331	-65.3	-...	28	..
90	31	19,272	-65.0	-...	28	..
70	31	20,389	-62.9	-...	28	..
60	31	21,773	-60.6	-...	29	..
50	31	23,588	-60.6	-...	29	..
40	31	24,739	-60.9	-...	28	..
30	31	26,177	-62.7	-...	27	..
25	31	27,842	-...	-...	27	..
20	31	29,...	-...	-...	27	..
15	31	30,...	-...	-...	27	..
10	31	32,...	-...	-...	27	..

RENO, NV — 813 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	.,9 8	-8.8	-11.4	20	3.1
1000						
950						
900						
850						
800	31	2,039	-3..	-8.5	28	1.7
750	31	2,552	-2.9	-11.1	32	2.0
700	31	3,097	-4.9	-13.8	31	4.9
650	31	3,678	-6.7	-18.8	31	7.9
600	31	4,299	-10.2	-22.1	32	9.6
550	31	4,965	-14.3	-26.7	31	11.5
500	31	5,681	-19.3	-31.2	31	13.9
450	30	6,455	-25.1	-35.9	31	15.6
400	30	7,299	-31.6	-41.5	31	18.8
350	29	8,226	-38.9	-47.5	31	17.9
300	29	9,262	-47.2		31	19.7
250	29	10,445	-55.8		31	19.2
200	28	11,849	-61.9		30	20.9
175	28	12,675	-61.7		30	21.4
150	28	13,634	-61.2		30	20.8
125	28	14,768	-61.4		33	19.5
100	28	16,146	-63.6		31	15.2
90	27	17,518	-66.1		30	11.7
70	27	18,338	-63.1		31	10.0
60	24	19,293	-61.4		31	7.7
50	24	20,426	-60.5		31	7.0
40	23	21,831	-58.1		32	5.3
30	23	23,647	-56.6		33	5.0
25	20	24,810	-55.4		31	5.6
20	20	26,240	-53.6		30	6.5
15	17	28,092	-52.8		30	6.7

EMPALME, MEXICO — 1015 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	12	11.7	1.9	33	2.6
1000	31	138	16.3	2.1	34	3.4
950	31	576	17.8	-1.4	36	4.1
900	31	1,037	15.7	-3.0	36	2.0
850	31	1,519	13.1	-5.7	07	.4
800	31	2,026	10.1	-9.0	22	1.5
750	31	2,559	6.8	-12.4	23	2.6
700	31	3,121	3.2	-16.1	25	3.2
650	31	3,718	-.4	-18.6	26	4.1
600	31	4,353	-4.9	-23.1	27	5.5
550	31	5,031	-9.6	-26.0	26	6.8
500	31	5,759	-15.2	-30.4	27	7.9
450	30	6,551	-20.8	-33.9	27	10.2
400	30	7,410	-27.3	-39.5	26	11.7
350	29	8,360	-34.7	-46.2	26	14.4
300	29	9,421	-42.8		27	18.9
250	29	10,627	-51.4		27	23.6
200	28	12,048	-60.0		27	27.8
175	28	12,810	-65.1		27	24.6
150	28	13,741	-64.7		27	21.8
125	28	14,768	-62.8		27	17.3
100	28	16,148	-64.2		27	15.2
90	28	17,514	-66.9		28	14.8
70	28	18,465	-68.0		28	13.1
60	28	19,330	-67.8		28	10.0
50	28	20,504	-66.3		28	9.0
40	28	21,889	-63.7		29	5.7
30	28	23,739	-59.8		31	3.3
25	28	24,870	-56.4		32	2.6
20	28	26,283	-54.3		29	2.7
15	28	28,185	-50.4			

FAIRBANKS, AK — 991 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	135	-24.2	-28.0	36	.4
1000	31	183	-21.2	-22.8	08	3.0
950	31	450	-15.2	-18.6	08	4.5
900	31	861	-12.7	-17.4	10	5.2
850	31	1,299	-11.8	-18.1	13	3.4
800	31	1,762	-13.0	-19.5	15	3.4
750	31	2,253	-14.7	-20.8	18	2.1
700	31	2,772	-17.6	-23.7	21	2.8
650	31	3,324	-20.9	-28.1	22	2.8
600	31	3,910	-24.8	-31.2	22	3.2
550	31	4,538	-29.1	-35.6	23	3.3
500	31	5,213	-34.0	-40.4	23	3.3
450	31	5,943	-38.9	-42.5	24	3.9
400	31	6,742	-44.4		24	4.4
350	31	7,628	-50.3		24	5.7
300	30	8,625	-55.3		26	7.3
250	29	9,793	-55.6		24	10.8
200	29	11,210	-55.1		26	14.3
175	29	12,061	-55.3		26	15.7
150	29	13,044	-55.6		26	17.0
125	29	14,206	-55.9		27	20.0
100	29	15,623	-57.1		27	23.0
90	28	17,051	-58.1		27	25.5
70	28	17,891	-58.6		28	27.3
60	28	18,873	-58.9		28	29.3
50	28	20,053	-58.8		28	31.5
40	28	21,503	-58.4		28	34.1
30	28	23,369	-58.0		28	40.1
25	28	24,577	-56.6		29	42.6
20	28	26,030	-56.0			

FLINT, MI — 989 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of degs)	Resultant Wind Speed (mps)
SFC	31	236	-8.2	-11.0	23	2.5
1000						
950	31	544	-9.4	-11.6	26	5.1
900	31	961	-10.4	-13.1	27	7.4
850	31	1,401	-11.0	-15.6	27	9.2
800	31	1,866	-11.6	-18.1	27	10.6
750	31	2,360	-13.1	-20.3	27	12.7
700	31	2,885	-14.8	-23.3	27	14.6
650	31	3,444	-17.3	-26..	27	15.6
600	31	4,040	-20.4	-29.9	27	17.7
550	31	4,680	-24.0	-32.9	27	19.3
500	31	5,369	-28.5	-38.2	28	22.1
450	31	6,117	-33.1	-42.0	27	25.1
400	31	6,936	-38.8	-44.6	27	27.8
350	30	7,848	-44.7		27	31.0
300	29	8,860	-50.6		27	34.4
250	29	10,036	-55.0		27	34.5

RAWINSONDE DATA

Average monthly values

JANUARY 1976

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s

GREAT FALLS, MONTANA INTL.
908 MB

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	111	24.4	22.6	05	4.3
1000	31	543	22.2	14.7	08	10.6
950	31	1014	19.3	15.0	09	11.1
900	31	1503	16.7	10.3	10	10.6
850	31	2019	15.0	5.7	09	9.5
800	31	2563	12.0	-2.2	09	8.8
750	31	3139	9.5	-3.6	09	8.4
700	31	3751	6.5	-9.4	10	7.5
650	31	4404	2.0	-13.4	10	7.1
600	31	5102	-1.6	-17.8	11	7.2
550	31	5857	-5.5	-22.6	11	7.0
500	31	6676	-10.0	-27.0	11	7.6
450	31	7573	-16.0	-31.6	11	5.6
400	31	8569	-22.8	-37.0	11	5.0
350	31	9677	-31.3	-44.7	14	4.3
300	31	10942	-41.4		14	3.4
250	29	12410	-53.7		14	3.1
200	29	13261	-60.6		15	3.0
150	29	14203	-68.4		15	2.9
100	29	15274	-76.1		15	3.4
70	29	16528	-84.4		13	13.3
50	28	17759	-88.1		11	7.4
40	27	18521	-77.6		10	4.2
30	27	19423	-70.6		27	2.6
20	27	20522	-65.4		26	4.2
15	27	21691	-62.3		27	5.3
10	27	23089	-57.0		26	6.1
7	26	24770	-53.1		27	4.3
5	26	26280	-51.4		30	1.9
3	26	28171	-48.6		31	3.3

MILES, MI
1014 MB

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	111	19.3	16.9	23	1.3
1000	31	534	20.2	10.8	22	1.2
950	31	976	17.6	15.4	13	1.4
900	31	1037	14.8	12.5	11	2.4
850	31	1519	11.8	8.8	11	2.7
800	31	2015	9.4	4.6	12	3.5
750	31	2559	6.7	-1.6	12	3.8
700	31	3122	3.6	-7.4	11	3.7
650	31	3721	.8	-12.0	10	3.2
600	31	4361	-2.5	-17.6	07	2.9
550	31	5047	-5.6	-24.0	02	3.1
500	31	5788	-10.4	-27.9	01	4.1
450	31	6591	-15.8	-32.5	34	9.1
400	31	7466	-21.7	-38.1	33	9.1
350	30	8439	-28.4	-44.0	33	12.2
300	30	9564	-36.5	-50.4	33	16.4
250	30	10764	-45.1		33	21.8
200	30	12223	-54.8		33	24.4
150	30	13868	-59.8		33	24.7
100	30	16118	-65.2		33	21.1
70	30	18113	-71.3		33	15.7
50	30	19414	-76.2		33	10.1
40	29	17496	-76.5		34	6.1
30	29	18471	-73.3		35	3.5
20	28	19381	-68.9		02	1.4
15	28	20483	-64.6		23	1.4
10	28	21861	-60.1		31	1.8
7	28	23677	-55.9		32	1.2
5	27	24844	-53.9		35	1.1
3	26	26285	-52.0		35	.3
2	26	27955	-49.8		28	1.2
1.5	25	28161	-49.0		28	1.2
1	18	30863	-44.6		26	1.0

HUNTINGTON, WV
991 MB

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	246	-2.7	-6.8	25	1.3
1000	31	577	-3.0	-7.5	24	5.4
950	31	1004	-4.4	-9.1	6	8.3
900	31	1456	-5.9	-11.6	6	11.4
850	31	1929	-5.2	-14.7	7	12.0
800	31	2433	-7.7	-16.1	7	14.6
750	31	2968	-9.9	-17.0	7	16.8
700	31	3538	-11.8	-23.7	7	19.1
650	31	4148	-15.3	-26.8	7	21.3
600	31	4799	-18.9	-29.8	7	24.0
550	31	5503	-23.4	-35.3	7	26.9
500	31	6266	-28.4	-39.3	7	29.1
450	31	7106	-34.4	-44.5	7	31.1
400	31	8030	-40.9	-46.9	7	34.3
350	31	9060	-47.7		7	36.3
300	31	10246	-53.4		7	36.9
250	31	11667	-56.8		7	37.7
200	31	13368	-55.8		7	35.2
150	31	15447	-56.1		7	34.1
100	31	17948	-59.7		7	34.1
70	31	19775	-63.6		7	33.8
50	31	21057	-67.1		7	32.5
40	31	21870	-68.9		7	31.1
30	31	22788	-70.4		7	29.6
20	31	23908	-72.1		7	27.7
15	31	24524	-73.4		7	26.4
10	31	25230	-74.7		7	25.2
7	31	26030	-75.6		7	24.0

INTERNATIONAL FALLS, MN
976 MB

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	357	-19.7	-23.4	28	.9
1000	31	531	-17.7	-20.0	29	2.4
950	31	937	-15.7	-19.1	29	5.2
900	31	1370	-14.2	-19.4	30	7.5
850	31	1830	-14.3	-20.0	31	9.0
800	31	2318	-15.8	-22.9	31	11.1
750	31	2837	-17.9	-25.5	31	13.0
700	31	3388	-20.3	-30.6	31	14.5
650	31	3977	-23.6	-34.6	31	15.8
600	31	4609	-27.3	-36.6	31	17.2
550	31	5289	-31.9	-39.0	31	18.8
500	31	6026	-36.7	-41.8	31	20.4
450	31	6832	-42.6	-43.9	31	22.1
400	31	7725	-48..		31	24.2
350	31	8725	-53.7		31	26.5
300	31	9889	-56.0		31	27.9
250	31	11312	-55.1		31	29.4
200	31	12965	-55.1		31	30.5
150	31	14812	-56.3		31	30.4
100	31	15725	-57.7		29	29.2
70	30	17128	-59.0		29	28.6
50	30	18928	-60.2		29	28.9
40	29	20069	-60..		29	28.3
30	29	21444	-61.4		28	28.6
20	28	23255	-61.5		28	28.3
15	28	24385	-62.1		28	30.3
10	28	25772	-59.3		27	35.8
7	27	27605	-57.5		27	39.7
5	26	30301	-50.1			

ISLE DELL ISLE
1014 MB

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	10	24.0	19.4	05	4.0
1000	31	135	23.8	18.6	05	5.3
950	31	582	20.0	16.6	06	7.5
900	31	1047	16.6	13.0	06	6.7
850	31	1532	13.5	8.8	07	6.0
800	31	2041	11.2	6.5	08	5.2
750	31	2578	8.5	-.8	08	4.4
700	31	3147	4.5	-7.0	09	4.0
650	31	3752	4.4	-12.8	08	2.7
600	31	4401	1.5	-17.6	11	1.5
550	31	5099	-2.6	-22.3	19	1.4
500	31	5845	-7.7	-26.8	21	3.3
450	31	6655	-13.8	-31.7	23	4.7
400	31	7538	-20.6	-37.0	24	6.4
350	31	8513	-28.4	-..	25	9.8
300	31	9594	-37.6	-49.1	25	14.1
250	31	10827	-47.1		24	17.8
200	31	12272	-56.7		24	22.6
150	31	13827	-60.7		24	22.7
100	31	15661	-64.4		23	22.4
70	31	17182	-69.7		25	18.0
50	30	18471	-75.6		24	10.8
40	28	17758	-75.9		25	5.1
30	28	18534	-73.5		27	2.6
20	28	19446	-69.2		28	2.4
15	28	20546	-64.1		29	3.6
10	28	21932	-59.5		29	4.3
7	28	23750	-54.9		33	4.3
5	28	24926	-52.5		35	3.3
3	26	26378	-49.5		07	4.1
2	24	28211	-46.4		11	7.1
1.5	19	28281	-46.0		11	7.1
1	12	30992	-43.5			

JACKSON, MS
1014 MB

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	100	6.9	.2	13	.2
1000	30	195	3.8	-1.8	20	.8
950	31	609	4.4	-4.5	24	4.7
900	31	1050	4.0	-6.8	26	6.8
850	31	1532	3.3	-9.1	27	8.2
800	31	2041	1.9	-11.8	28	10.0
750	31	2578	.1	-13.1	27	11.3
700	31	3147	-2.0	-17.0	28	13.1
650	31	3752	-5.3	-20.2	27	15.4
600	31	4401	-8.4	-23.6	27	17.9
550	31	5099	-12.8	-28.4	27	20.4
500	31	5845	-17.0	-33.0	27	22.4
450	31	6655	-23.0	-37.5	27	25.0
400	31	7538	-29.4	-43.0	27	26.2
350	31	8549	-36.5	-48.9	26	29.7
300	31	9698	-44.6		25	31.4
250	31	10982	-53.8		25	35.0
200	31	11900	-60.4		25	37.6
150	31	12731	-61.2		26	37.6
100	31	13689	-61.6		26	34.5
70	31	14817	-63.4		26	31.8
50	31	16179	-65.9		26	25.7
40	31	17531	-60.4		26	18.7
30	31	18342	-65.5		26	17.5
20	31	19281	-64.5		27	13.5
15	30	20404	-64.1		27	9.2
10	30	21794	-59.5		28	6.5
7	30	23611	-50.0		27	5.1
5	29	24779	-54.6		27	5.5
3	24	26211	-52.4		27	4.8
2	19	28115	-48.9		27	5.4

JOHN F. KENNEDY INT. AP, NY
1017 MB

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	5	-8.1	-13.0	30	2.7
1000	29	144	-3.5	-10.8	29	2.3
950	29	568	-4.7	-10.1	27	5.7
900	29	973	-5.7	-11.6	27	8.0
850	29	1421	-6.6	-13.4	27	9.8
800	29	1894	-7.2	-15.6	27	12.2
750	29	2396	-8.8	-16.5	26	14.8
700	29	2929	-10.7	-17.0	26	17.5
650	29	3496	-13.3	-22.6	26	20.0
600	29	4099	-16.7	-27.3	26	22.6
550	29	4738	-20.6	-31.8	25	25.0
500	29	5450	-25.2	-34.9	26	27.0
450	29	6207	-31.3	-39.0	26	28.8
400	29	7035	-38.9	-42.6	26	30.5
350	29	7955	-47.3	-44.8	26	33.
300	29	8979	-48..		26	36.2
250	28	10161	-48.2		24	36.2
200	28	11582	-47.0		24	34.0
150	28	12428	-46.5		24	38.2
100	28	13446	-46.3		24	34.7
70	28	14563	-47.5		26	31.6
50	28	15965	-49.3		26	28.6
40	28	17398	-49.8		26	23.8
30	28	18183	-49.9		26	22.6
20	28	19167	-50.9		26	19.1
15	28	20313	-48.4		24	17.8
10	28	21714	-47.8		23	17.7
7	28	23542	-46.9		24	17.3
5	28	24705	-44.3		24	17.2
3	26	26151	-42.6		24	17.0
2	24	28160	-39.6			

JOHNSTON IS., PACIFIC AREA
912 MB

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	3	23.9	19.9	08	5.7
1000	31	106	23.	18.5	08	6.1
950	31	552	19.5	16.3	07	7.3
900	31	1016	16.5	12.3	09	6.4
850	31	1501	13.4	9.0	10	5.3
800	31	2011	12.1	.3	09	4.4
750	31	2555	10.4	-3.3	08	3.8
700	31	3122	7.	-7.7	06	2.6
650	31	3732	5.2	-11.8	02	2.1
600	31	4380	1.7	-15.5	05	2.1
550	31	5078	-2.6	-19.4	11	2.9
500	31	5824	-7.5	-23.6	24	3.0
450	31	6638	-12.1	-28.0	22	4.8
400	30	7528	-18.2	-33.3	31	5.7
350	30	8514	-25.2	-40.1	32	5.1
300	30	9612	-33.7	-48.2	30	8.7
250	30	10865	-43.3		30	5.3
200	30	12393	-54.1		30	2.3
150	30	13178	-60.2		31	1.2
100	30	14125	-66.5		31	2.9
70	30	15232	-72.6		32	2.5
50	30	16503	-79.8		34	2.1
40	29	17759	-81.1		01	5.7
30	28	18520	-76.8		34	6.2
20	28	19418	-72.1		34	6.4
15	28	20511	-65.2		7	7.1
10	28	21888	-60.4		27	6.7
7	28	23699	-56.1		28	6.2
5	28	24882	-54.7		29	5.9
3	26	26309	-51.4		5	5.4
2	24	28197	-48.1		19	5.5
1.5	19	28989	-47.6		11	6.1

KEY WEST, FL
1018 MB

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	8	17.7	14.8	04	3.0
1000	31	156	17.6	13..	01	4.1
950	31	593	15.1	10.4	05	3.6
900	31	1050	12.4	6.0	06	2.2
850	31	1529	11.	-..	..	1.5
800	31	2034	9.1	-3.0	24	1.4
750	31	2569	7..	-7.7	25	3.3
700	31	3134	4.7	-11.8	30	4.9
650	31	3735	1.9	-16.3	34	4.3
600	31	4376	-1.6	-20.9	36	3.3
550	31	5064	-5.9	-24.8	1..	3.0
500	31	5803	-11.8	-..	13	2.3
450	31	6603	-17.1	-33..	15	2.3
400	31	7475	-24..	-40..	18	3.3
350	31	8438	-31.3	-45..	21	4.9
300	31	9503	-39.8	-53..	24	5.7
250	31	10678	-49.3		28	6.2
200	31	12157	-59.5		33	4.9
150	31	12995	-62.5		33	2.9
100	31	13992	-64..		32	1.9
70	31	15132	-67.9		28	2.8
50	31	16503	-72.1		21	3.3
40	31	17677	-73.4		16	4.8
30	31	18644	-72.3		14	5.8
20	31	19418	-68.8		9	7.1
15	31	20511	-64.7		33	6.4
10	31	21888	-60.4		24	5.8
7	31	23699	-54.8		24	5.2
5	31	24849	-53.0		24	4.8
3	29	26299	-49.6		05	1.6
2	28	28193	-46.2		04	5.2
1.5	23	28989	-46.0		04	5.2
1	12	30908	-42.2			

KING SALMON, AK
996 MB

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	15	-11.1	-13.8	10	.4
1000	31	91	-12.3	-15.2	01	1.9
950	30	385	-5.6	-9.5	09	2.8
900	30	809	-6.1	-.0.9	13	2.6
850	30	1255	-7.5	-13.2	15	3.0
800	30	1725	-9.8	-10.5	16	3.5
750	30	2221	-12.6	-19.0	16	4.5
700	30	2744	-15.9	-22.7	16	4.3
650	30	3299	-19.3	-26.6	15	4.3
600	30	3891	-22.8	-30.7	15	3.4
550	30	4526	-26.5	-35.6	16	3.7
500	30	5206	-31..	-40.3	18	3.6
450	30	5940	-36.0	-44.8	21	4.5
400	30	6755	-41.3	-48.8	22	5.6
350	30	7653	-44.9		23	6.5
300	30	8653	-47.6		23	8.0
250	30	9784	-51.9		24	9.6
200	29	11086	-51.2		24	11.8
150	29	12155	-51.7		24	14.0
100	29	13159	-50.4		24	15.3
70	28	14347	-51.3		25	15.3
50	28	15793	-52.4		25	16.5
40	28	17234	-53.0		26	16.5
30	28	18095	-53.3		26	18.5
20	28	19082	-53.9		20	20.3
15	27	20251	-54.5		27	22.7
10	27	21678	-55.2		28	25.6
7	24	23508	-55.8		28	30.3
5	24	24663	-55.8		29	34.0
3	23	26076	-55.8		29	32.4
2	20	27956	-54.9			
1.5	16	28989	-52.9			

KOROR, CAROLINE IS.
1006 MB

Standard pressure surface, mb	Number of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	30	27.4	24.6	07	2.4
1000	31	82	26.5	23.5	07	2.8
950	31	534	23.0	20.8	08	4.9
900	31	1005	20.2	17.1	09	5.4
850	31	1497	17.4	12.7	08	4.9
800	31	2014	15.0	9.0	08	4.9
750	31	2559	12.3	5.8	08	5.0
700	31	3135	9.3	.4	08	4.2
650	31	3747	6.0	-4.1	08	4.0
600	31	4398	2.3	-8.0	09	4.8
550	31	5097	-1.2	-11.1	09	5.1
500	31	5850	-6.0	-16.0	09	5.6
450	31	6669	-10.8	-22.4	09	6.4
400	31	7566	-15.8	-29.4	09	6.8
350	31	8563	-22.0	-36.1	09	7.5
300	31	9673	-30.0	-43.8	10	7.4
250	31	10940	-41.3		11	8.4
200	31	12415	-53.0		11	11.1
150	31	13260	-60.1		11	12.3
100	31	14201	-68.0		11	14.7
70	31	15271	-76.9		11	17.8
50	31	16453	-83.6		11	20.9
40	31	17782	-75.7		09	22.4
30	31	18569	-70.0		08	23.5
20	31	19492	-63.9		26	7.2
15	31	20614	-66.0		27	9.4
10	31	22030	-57.4		27	10.9
7	31	23821	-55.1		27	9.8
5	31	24990	-53.6		27	9.3
3	29	26429	-50.8		28	9.0
2	23	28318	-48.1		25	5.0
1.5	20	28989	-47.1			
1	7	30953	-44.1			

RAWINSONDE DATA

Average monthly values

RAWINSONDE DATA

Average monthly values

JANUARY 1960

[illegible], [illegible]
[illegible] MB

Standard pressure millibars	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
SFC	29		+1.3	+0.4		
	29		+5.9	-11.3		
	29		+1.5	-4.5		
	29		+1.7	-7.3		
	29		+3.1	-13.5		
	29		+4.6	-16.1		
	29		+7.1	-17.8		
	29		-3.6	-22.1	27	8.9
	29		-12.9	-29.4	27	10.7
	29		-21.5	-36.5	27	25.7
	29		-33.0	-46.1	27	27.7
	29		-39.5	-45.2	28	33.1
	29		-46.8			
	29		-53.9			
	29		-58.2	11,182		
	29		-58.1	12,032		
	29		-58.4	13,003		
	29		-58.6	14,018		
	29		-58.6	15,008		
	29		-59.1	17,025		
	29		-63.2	17,871		
	29		-60.8	18,847		
	29		-60.1	19,769		
4	29	21,754	-58.5	21,395		
3	29	26,750	-53.6	24,418		
2	29	30,752	-51.2	25,980		
1.5	29	32,687	-49.9	27,790		
1	29		-49.4			
.7						
.5						

[illegible], AK
[illegible] MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
31		-6.4	-11.6	27	7.8
31		-16.0	-19.1		
31		-13.7	-21.[illegible]		
31	1,287	-13.8	-21.[illegible]	3	5.6
31	2,747	-14.7	-24.[illegible]	3	11.3
31	22,234	-16.2	-27.[illegible]	3	13.3
31	2,751	-18.9	-31.[illegible]	3	14.6
31	3,885	-23.9	-36.6	3	15.7
31	4,512	-29.4	-39.4	3	17.7
31	5,138	-34.6	-43.1	3	19.4
31	5,9[illegible]	-40.[illegible]	-46.[illegible]	3	21.0
31	6,767	-46.[illegible]	-49.[illegible]	3	22.8
31	8,037	-57.[illegible]	-57.[illegible]	3	25.0
31	9,[illegible]	-64.[illegible]		3	27.5
31	11,650	-58.[illegible]		3	28.1
31	12,032	-58.1		3	27.0
31	13,003	-57.6		3	25.3
31	14,018	-58.[illegible]		3	23.6
31	15,008	-59.[illegible]		3	19.6
31	17,025	-60.6		3	16.4
31	17,871	-60.6		3	15.4
31	18,847	-60.4		3	14.4
31	19,769	-59.7		3	13.7
31	21,737	-59.[illegible]		3	13.8
31	23,544	-57.[illegible]		3	15.4
31	24,700	-56.[illegible]		3	16.5
31	26,179	-55.[illegible]		3	20.0
31	27,956	-52.[illegible]		3	23.5
31	30,624	-51.[illegible]		3	29.4
31	33,004	-44.[illegible]		3	31.4
31	35,[illegible]	-41.[illegible]			

[illegible], [illegible]
[illegible] MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
31		-6.0	-10.2	25	6.5
31	544	-6.1	-9.7	27	4.8
31	998	-7.2	-12.4	28	8.3
31	1,493	-8.5	-13.6	27	11.3
31	1,993	-9.3	-16.8	27	12.8
31	2,491	-10.3	-18.3	27	14.4
31	2,990	-12.6	-21.4	27	16.1
31	3,504	-14.6	-23.3	27	18.7
31	4,017	-17.9	-26.6	27	21.3
31	4,742	-21.8	-30.3	27	23.7
31	5,438	-26.2	-34.7	27	26.1
31	6,192	-31.2	-37.7	27	28.9
31	7,012	-36.9	-42.3	27	33.2
31	7,928	-42.5	-47.0	27	36.5
30	8,952	-48.6		27	38.7
30	[illegible],37	-53.8		27	39.5
30	11,566	-55.9		27	37.1
30	[illegible],55	-55.5		27	36.4
30	[illegible],39	-56.0		27	33.6
30	[illegible],545	-57.3		27	30.5
30	[illegible],[illegible]	-59.[illegible]		27	27.8
30	[illegible],[illegible]	-59.0		27	25.4
30	[illegible],[illegible]	-59.5		27	21.6
30	[illegible],[illegible]	-59.4		27	19.4
30	[illegible],[illegible]	-59.0		27	17.3
30	[illegible],[illegible]	-59.[illegible]		27	16.2
30	23,486	-57.0		26	18.3
30	[illegible],557	-55.2		26	19.2
30	26,[illegible]	-52.9		25	19.0
30	[illegible],[illegible]	-51.5		24	24.2
30	30,584	-45.2			
30	[illegible],[illegible]	-42.2			
30	35,365	-39.[illegible]			

[illegible], CA
[illegible] MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
31		5.2	[illegible].7	[illegible].2	
31	397	9.6	[illegible].3	[illegible].1	
31	824	10.5	-3.[illegible]	03	3.4
31	1,274	10.1	-7.[illegible]	36	3.5
31	1,547	8.2	-[illegible].[illegible]	34	3.5
31	[illegible],[illegible]24	6.5	-[illegible].[illegible]	32	4.2
31	2,573	4.7	-[illegible].[illegible]	32	5.0
31	3,129	2.7	-13.[illegible]	31	6.4
31	3,720	-1.2	-[illegible].4	30	6.7
31	4,348	-7.3	-[illegible].9	31	7.9
31	5,020	-[illegible].8	-[illegible].4	30	8.9
31	5,742	-17.0	-[illegible].3	31	9.8
31	[illegible],524	-22.7	-[illegible].[illegible]	31	11.2
31	7,377	-29.4	-[illegible].[illegible]	31	11.3
30	[illegible],[illegible]3.7	-37.0	-[illegible].9	31	11.6
31	9,361	-[illegible].6		31	14.0
30	10,553	-[illegible].1		30	15.0
31	[illegible],951	-[illegible].4		30	17.9
31	12,776	-[illegible].7		30	18.2
31	13,736	-[illegible].5		30	15.8
31	14,859	-[illegible].2		30	14.5
31	16,224	-[illegible].7		30	12.2
31	17,580	-[illegible].6		31	8.8
31	18,394	-[illegible].4		31	8.0
30	19,340	-[illegible].0		32	7.6
31	[illegible],467	-[illegible].4		34	5.8
31	[illegible],659	-[illegible].6		35	4.8
31	22,672	-67.1		01	4.6
31	24,835	-[illegible].5		36	5.1
31	26,269	-[illegible].2		36	5.9
31	28,109	-[illegible].6		33	6.6
31	30,762	-[illegible].5		32	8.1

[illegible], ME
[illegible] MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
31	403	-9.[illegible]	-12.[illegible]	3[illegible]	1.[illegible]
31	571	-8.6	-12.[illegible]	3[illegible]	3.5
31	990	-9.[illegible]	-12.[illegible]	3[illegible]	[illegible].7
31	1,445	-9.0	-13.9	31	[illegible].[illegible]
31	1,921	-9.8	-18.5	31	[illegible].[illegible]
31	2,422	-7.8	-[illegible].2	31	[illegible].[illegible]
31	2,959	-10.6	-[illegible].3	30	13.6
31	3,520	-13.[illegible]	-[illegible].[illegible]	30	15.0
31	[illegible],[illegible]3	-17.0	-[illegible].4	30	[illegible].[illegible]
31	4,779	-21.0	-31.3	30	[illegible].9
31	5,477	-25.5	-36.[illegible]	31	[illegible].5
31	6,233	-30.5	-39.[illegible]	27	[illegible].9
31	7,061	-[illegible].3	-[illegible].8	27	22.8
31	7,977	-[illegible].0		29	25.1
31	[illegible],999	-[illegible].[illegible]		29	27.7
30	10,180	-[illegible].[illegible]		29	[illegible].[illegible]
31	11,597	-[illegible].[illegible]		29	[illegible].8
31	12,443	-[illegible].7		29	[illegible].[illegible]
31	13,422	-[illegible].5		29	[illegible].1
31	14,578	-[illegible].3		29	[illegible].2
31	[illegible],793	-[illegible].1		29	[illegible].2
31	17,379	-[illegible].[illegible]		29	[illegible].5
28	18,212	-[illegible].[illegible]		29	[illegible].5
28	19,172	-[illegible].8		29	[illegible].
27	20,316	-[illegible].8		29	[illegible].9
27	21,710	-[illegible].8		29	[illegible].[illegible]
27	23,530	-[illegible].[illegible]		28	[illegible].3
21	24,686	-[illegible].[illegible]		28	[illegible].[illegible]
21	26,100	-[illegible].3		27	[illegible].[illegible]
12	27,936	-[illegible].1		26	[illegible].8

[illegible], [illegible]
[illegible] MB

Standard pressure millibars	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
SFC	31		+3.4	-3.4		
	31		+6.6	-1.8		
	31		+2.9	-4.8		
	31		+1.4	-7.3		
	31		+0.1	-9.1		
	31		-1.6	-10.9	24	
	31		+4.0	-14.8	25	
	31		+7.0	-17.1	26	
	31		-10.1	-19.9	26	
	31		-14.3	-24.1	26	15.9
	31		-18.6	-27.3	26	17.6
	31		-23.5	-32.3	27	19.3
	31		-28.6	-36.3	27	21.4
	31		-34.7	-42.5	27	24.4
	31		-41.2	-46.2	27	
	31		-46.6		28	
	31		-52.0		29	27.3
	31		-55.4		29	25.9
	31		-59.6		29	24.8
	31		-58.6		29	23.4
	31		-58.6		29	22.3
	31		-60.5		30	19.4
	31		-60.5		30	18.5
	31		-60.7		30	17.6
	31		-59.7		30	16.6
	31		-58.6		30	13.6
	31		-58.6		31	
	31		-57.0		31	
	31		-56.4		31	

[illegible], [illegible]
[illegible] MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
31		-6.4	-11.6	27	7.8
31		-16.7	-20.7		
31		-7.5	-[illegible].[illegible]		5.4
31		-6.2	-15.2	28	8.3
31	1,432	-6.7	-17.6	27	11.3
31	[illegible],[illegible]3	-7.6	-18.8	27	12.8
31	2,406	-9.3	-21.8	27	14.4
31	2,936	-11.8	-23.6	28	16.1
31	3,501	-14.6	-26.1	27	18.7
31	[illegible],[illegible]0	-17.9	-28.8	28	21.3
31	[illegible],[illegible]3	-21.8	-31.[illegible]	28	23.7
31	[illegible],[illegible]5	-26.0	-35.1	28	26.1
31	[illegible],[illegible]2	-31.0	-40.7	28	28.9
31	[illegible],[illegible]0	-36.6	-45.9	28	33.2
31	[illegible],[illegible]3	-42.6	-[illegible]	28	36.5
30	[illegible],[illegible]2	-49.2		27	38.7
30	[illegible],[illegible]7	-54.6		28	39.5
30	11,567	-57.0		28	37.1
30	12,415	-55.8		28	36.4
30	13,395	-56.3		28	33.6
30	14,548	-57.7		28	30.5
30	15,952	-59.[illegible]		28	27.8
30	17,344	-60.1		28	25.4
30	18,177	-60.6		28	21.6
30	19,138	-[illegible].[illegible]		28	19.4
30	[illegible],[illegible]2	-59.7		28	17.3
30	21,675	-58.7		28	16.2
30	23,486	-57.0		28	18.3
30	[illegible],[illegible]7	-55.2		28	19.2
30	26,[illegible]	-52.9		27	19.0
30	[illegible],[illegible]4	-51.5		0	23.3
30	30,584	-45.2			
30	[illegible],[illegible]8	-42.2			
30	35,365	-39.[illegible]			

[illegible], CA
[illegible] MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
31		5.2	[illegible].7	[illegible].2	
31	397	9.6	[illegible].3	[illegible].1	
31	824	10.5	-3.[illegible]	03	3.4
31	[illegible],[illegible]74	10.1	-7.[illegible]	36	3.5
31	1,547	8.2	-[illegible].[illegible]	34	3.5
31	[illegible],[illegible]24	6.5	-[illegible].[illegible]	32	4.2
31	2,573	4.7	-[illegible].[illegible]	32	5.0
31	3,129	2.7	-13.[illegible]	31	6.4
31	3,720	-1.2	-[illegible].4	30	6.7
31	4,348	-7.3	-[illegible].9	31	7.9
31	5,020	-[illegible].8	-[illegible].4	30	8.9
31	5,742	-17.0	-[illegible].3	31	9.8
31	[illegible],524	-22.7	-[illegible].[illegible]	31	11.2
31	7,377	-29.4	-[illegible].[illegible]	31	11.3
30	[illegible],[illegible]3.7	-37.0	-[illegible].9	31	11.6
31	9,361	-[illegible].6		31	14.0
30	10,553	-[illegible].1		30	15.0
31	[illegible],951	-[illegible].4		30	17.9
31	12,776	-[illegible].7		30	18.2
31	13,736	-[illegible].5		30	15.8
31	14,859	-[illegible].3		30	14.5
31	16,224	-[illegible].7		30	12.2
31	17,580	-[illegible].6		31	8.8
31	18,394	-[illegible].4		31	8.0
30	19,340	-[illegible].0		32	7.6
31	[illegible],467	-[illegible].4		34	5.8
31	[illegible],659	-[illegible].6		35	4.8
31	22,672	-67.1		01	4.6
31	24,835	-[illegible].5		36	5.1
31	26,269	-[illegible].2		36	5.9
31	28,109	-[illegible].6		33	6.6
31	30,762	-[illegible].5		32	8.1

[illegible], ME
[illegible] MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
31	403	-9.[illegible]	-12.[illegible]	3[illegible]	1.[illegible]
31	571	-8.6	-12.[illegible]	3[illegible]	3.5
31	990	-9.[illegible]	-12.[illegible]	3[illegible]	[illegible].7
31	1,445	-9.0	-13.9	31	[illegible].[illegible]
31	1,921	-9.8	-18.5	31	[illegible].[illegible]
31	2,422	-7.8	-[illegible].2	31	[illegible].[illegible]
31	2,959	-10.6	-[illegible].3	30	13.6
31	3,520	-13.[illegible]	-[illegible].[illegible]	30	15.0
31	[illegible],[illegible]3	-17.0	-[illegible].4	30	[illegible].[illegible]
31	4,779	-21.0	-31.3	30	[illegible].9
31	5,477	-25.5	-36.[illegible]	31	[illegible].5
31	6,233	-30.5	-39.[illegible]	27	[illegible].9
31	7,061	-[illegible].3	-[illegible].8	27	22.8
31	7,977	-[illegible].0		29	25.1
31	[illegible],999	-[illegible].[illegible]		29	27.7
30	10,180	-[illegible].[illegible]		29	[illegible].[illegible]
31	11,597	-[illegible].[illegible]		29	[illegible].8
31	12,443	-[illegible].7		29	[illegible].[illegible]
31	13,422	-[illegible].5		29	[illegible].1
31	14,578	-[illegible].3		29	[illegible].2
31	[illegible],793	-[illegible].1		29	[illegible].2
31	17,379	-[illegible].[illegible]		29	[illegible].5
28	18,212	-[illegible].[illegible]		29	[illegible].5
28	19,172	-[illegible].8		29	[illegible].
27	20,316	-[illegible].8		29	[illegible].9
27	21,710	-[illegible].8		29	[illegible].[illegible]
27	23,530	-[illegible].[illegible]		28	[illegible].3
21	24,686	-[illegible].[illegible]		28	[illegible].[illegible]
21	26,100	-[illegible].3		27	[illegible].[illegible]
12	27,936	-[illegible].1		26	[illegible].8

[illegible], [illegible]
[illegible] MB

Standard pressure millibars	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
SFC	31		+3.4	-3.4		
	31		+6.6	-1.8		
	31		+2.9	-4.8		
	31		+1.4	-7.3		
	31		+0.1	-9.1		
	31		-1.6	-10.9	24	
	31		+4.0	-14.8	25	
	31		+7.0	-17.1	26	
	31		-10.1	-19.9	26	
	31		-14.3	-24.1	26	15.9
	31		-18.6	-27.3	26	17.6
	31		-23.5	-32.3	27	19.3
	31		-28.6	-36.3	27	21.4
	31		-34.7	-42.5	27	24.4
	31		-41.2	-46.2	27	
	31		-46.6		28	
	31		-52.0		29	27.3
	31		-55.4		29	25.9
	31		-59.6		29	24.8
	31		-58.6		29	23.4
	31		-58.6		29	22.3
	31		-60.5		30	19.4
	31		-60.5		30	18.5
	31		-60.7		30	17.6
	31		-59.7		30	16.6
	31		-58.6		30	13.6
	31		-58.6		31	
	31		-57.0		31	
	31		-56.4		31	

[illegible], [illegible]
[illegible] MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
31		-6.4	-11.6	27	7.8
31		-16.7	-20.7		
31		-7.5	-[illegible].[illegible]		5.4
31		-6.2	-15.2	28	8.3
31	1,432	-6.7	-17.6	27	11.3
31	[illegible],[illegible]3	-7.6	-18.8	27	12.8
31	2,406	-9.3	-21.8	27	14.4
31	2,936	-11.8	-23.6	28	16.1
31	3,501	-14.6	-26.1	27	18.7
31	[illegible],[illegible]0	-17.9	-28.8	28	21.3
31	[illegible],[illegible]3	-21.8	-31.[illegible]	28	23.7
31	[illegible],[illegible]5	-26.0	-35.1	28	26.1
31	[illegible],[illegible]2	-31.0	-40.7	28	28.9
31	[illegible],[illegible]0	-36.6	-45.9	28	33.2
31	[illegible],[illegible]3	-42.6	-[illegible]	28	36.5
30	[illegible],[illegible]2	-49.2		27	38.7
30	[illegible],[illegible]7	-54.6		28	39.5
30	11,567	-57.0		28	37.1
30	12,415	-55.8		28	36.4
30	13,395	-56.3		28	33.6
30	14,548	-57.7		28	30.5
30	15,952	-59.[illegible]		28	27.8
30	17,344	-60.1		28	25.4
30	18,177	-60.6		28	21.6
30	19,138	-[illegible].[illegible]		28	19.4
30	[illegible],[illegible]2	-59.7		28	17.3
30	21,675	-58.7		28	16.2
30	23,486	-57.0		28	18.3
30	[illegible],[illegible]7	-55.2		28	19.2
30	26,[illegible]	-52.9		27	19.0
30	[illegible],[illegible]4	-51.5		0	23.3
30	30,584	-45.2			
30	[illegible],[illegible]8	-42.2			
30	35,365	-39.[illegible]			

[illegible], CA
[illegible] MB

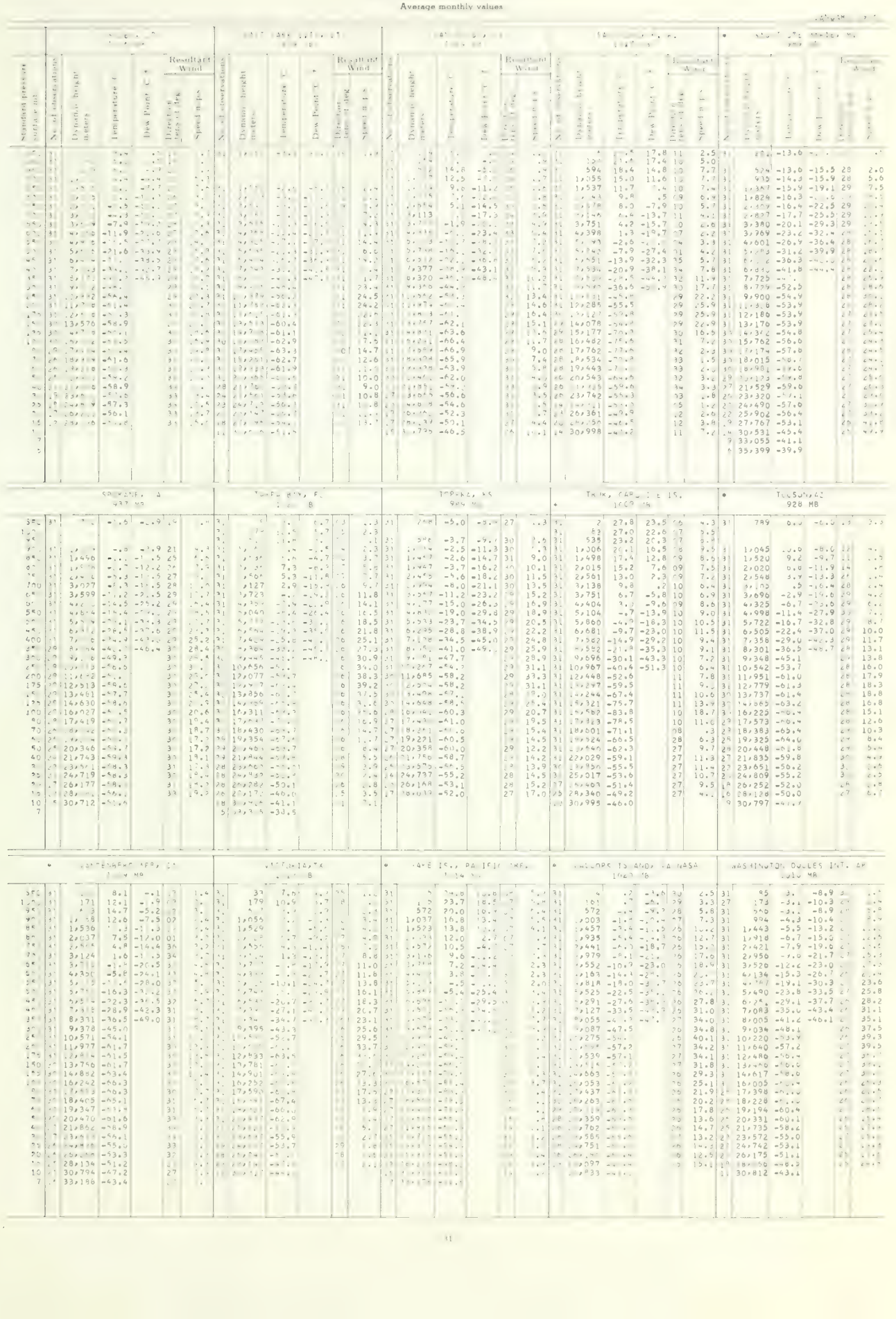
No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
31		5.2	[illegible].7	[illegible].2	
31	397	9.6	[illegible].3	[illegible].1	
31	824	10.5	-3.[illegible]	03	3.4
31	[illegible],[illegible]74	10.1	-7.[illegible]	36	3.5
31	1,547	8.2	-[illegible].[illegible]	34	3.5
31	[illegible],[illegible]24	6.5	-[illegible].[illegible]	32	4.2
31	2,573	4.7	-[illegible].[illegible]	32	5.0
31	3,129	2.7	-13.[illegible]	31	6.4
31	3,720	-1.2	-[illegible].4	30	6.7
31	4,348	-7.3	-[illegible].9	31	7.9
31	5,020	-[illegible].8	-[illegible].4	30	8.9
31	5,742	-17.0	-[illegible].3	31	9.8
31	[illegible],524	-22.7	-[illegible].[illegible]	31	11.2
31	7,377	-29.4	-[illegible].[illegible]	31	11.3
30	[illegible],[illegible]3.7	-37.0	-[illegible].9	31	11.6
31	9,361	-[illegible].6		31	14.0
30	10,553	-[illegible].1		30	15.0
31	[illegible],951	-[illegible].4		30	17.9
31	12,776	-[illegible].7		30	18.2
31	13,736	-[illegible].5		30	15.8
31	14,859	-[illegible].3		30	14.5
31	16,224	-[illegible].7		30	12.2
31	17,580	-[illegible].6		31	8.8
31	18,394	-[illegible].4		31	8.0
30	19,340	-[illegible].0		32	7.6
31	[illegible],467	-[illegible].4		34	5.8
31	[illegible],659	-[illegible].6		35	4.8
31	22,672	-67.1		01	4.6
31	24,835	-[illegible].5		36	5.1
31	26,269	-[illegible].2		36	5.9
31	28,109	-[illegible].6		33	6.6
31	30,762	-[illegible].5		32	8.1

[illegible], ME
[illegible] MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m.p.s.
31	403	-9.[illegible]	-12.[illegible]	3[illegible]	1.[illegible]
31	571	-8.6	-12.[illegible]	3[illegible]	3.5
31	990	-9.[illegible]	-12.[illegible]	3[illegible]	[illegible].7
31	1,445	-9.0	-13.9	31	[illegible].[illegible]
31	1,921	-9.8	-18.5	31	[illegible].[illegible]
31	2,422	-7.8	-[illegible].2	31	[illegible].[illegible]
31	2,959	-10.6	-[illegible].3	30	13.6
31	3,520	-13.[illegible]	-[illegible].[illegible]	30	15.0
31	[illegible],[illegible]3	-17.0	-[illegible].4	30	[illegible].[illegible]
31	4,779	-21.0	-31.3	30	[illegible].9
31	5,477	-25.5	-36.[illegible]	31	[illegible].5
31	6,233	-30.5	-39.[illegible]	27	[illegible].9
31	7,061	-[illegible].3	-[illegible].8	27	22.8
31	7,977	-[illegible].0		29	25.1
31	[illegible],999	-[illegible].[illegible]		29	27.7
30	10,180	-[illegible].[illegible]		29	[illegible].[illegible]
31	11,597	-[illegible].[illegible]		29	[illegible].8
31	12,443	-[illegible].7		29	[illegible].[illegible]
31	13,422	-[illegible].5		29	[illegible].1
31	14,578	-[illegible].3		29	[illegible].2
31	[illegible],793	-[illegible].1		29	[illegible].2
31	17,379	-[illegible].[illegible]		29	[illegible].5
28	18,212	-[illegible].[illegible]		29	[illegible].5
28	19,172	-[illegible].8		29	[illegible].
27	20,316	-[illegible].8		29	[illegible].9
27	21,710	-[illegible].8		29	[illegible].[illegible]
27	23,530	-[illegible].[illegible]		28	[illegible].3
21	24,686	-[illegible].[illegible]		28	[illegible].[illegible]
21	26,100	-[illegible].3		27	[illegible].[illegible]
12	27,936	-[illegible].1		26	[illegible].8

RAWINSONDE DATA

Average monthly values



RAWINSONDE DATA

Average monthly values

JANUARY 1979

YAP, CAROLINE IS.
1008 MB

No. of observations	Geopotential height (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind Direction (deg. true)	Resultant Wind Speed (m/s)
29	14	27.5	23.7	08	3.5
29	54	26.9	23.0	08	4.5
29	334	23.4	20.5	07	7.9
29	1,003	20.4	16.6	08	7.8
29	1,447	17.4	12.4	08	7.4
29	2,015	15.1	7.9	08	7.0
29	2,580	12.9	4.3	08	7.1
29	3,137	9.9	-1.1	08	6.8
29	3,750	6.7	-5.8	09	6.9
29	4,409	3.0	-10.1	09	7.9
29	5,104	-1.0	-14.9	09	7.2
29	5,858	-5.6	-17.9	10	7.6
29	6,678	-9.7	-24.7	10	6.6
29	7,570	-15.3	-30.8	10	6.4
29	8,576	-22.2	-36.8	10	6.9
29	9,686	-30.0	-44.2	10	6..
29	10,956	-41.0	-51.6	11	7.2
28	12,431	-53.3		12	9.7
28	13,277	-60.5		11	10.5
28	14,230	-68.4		11	11.7
28	15,292	-76.5		11	15.2
28	16,552	-83.0		11	18.7
27	17,799	-77.4		10	8.0
27	18,977	-71.7		33	.9
27	19,506	-66.3		28	6.0
26	20,615	-62.6		28	7.8
25	22,202	-59.6		27	8.5
25	23,682	-55.1		26	7.9
20	24,997	-52.6		26	7.4
19	26,443	-50.1		25	6.6
16	28,320	-48.5		24	3.8
8	31,041	-43.5			

SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun. JANUARY 1976

Sun's zenith distance

Day	A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°

MAUNA LOA OBSERVATORY, HAWAII

Air mass

	4.06	2.89	2.01	1.74	*	1.34	2.00	2.89	3.36
1	----	1.25	1.38	1.48	----	1.47	1.34	1.21	----
2	1.24	1.33	1.39	1.56	1.65	1.55	1.42	1.27	1.25
3	1.27	1.34	1.41	1.56	1.65	1.54	1.41	1.30	----
4	1.21	1.29	1.39	1.51	----	----	----	----	----
5	----	----	----	----	1.59	1.48	1.36	1.20	1.18
6	1.27	1.36	1.45	1.57	----	----	----	----	----
7	----	----	----	----	1.63	----	----	----	----
8	1.24	----	----	----	----	----	----	----	----
9	----	----	----	----	1.61	1.41	1.27	1.11	1.36
10	1.23	1.31	1.41	1.54	1.64	----	----	----	----
11	1.25	1.34	1.43	1.56	----	----	----	----	----
12	----	----	----	1.54	----	----	----	----	----
13	1.35	1.43	1.52	1.63	1.71	1.60	1.48	1.30	1.52
14	1.37	1.42	1.50	1.59	1.64	----	----	----	----
15	1.35	1.42	1.49	1.58	1.64	----	----	----	----
16	1.14	1.24	1.35	1.47	----	----	----	----	----
17	1.21	1.30	1.40	1.53	1.62	----	----	----	----
18	1.21	1.31	1.42	1.54	----	----	----	----	----
19	1.23	1.32	1.43	1.55	1.63	----	----	----	----
20	1.25	1.34	1.45	1.56	----	----	----	----	----
21	1.27	1.35	1.45	1.56	1.64	1.52	1.40	1.21	1.24
22	.91	1.11	1.31	1.51	----	----	----	----	----
23	1.22	1.31	1.41	1.55	1.63	----	----	----	----
30	1.09	1.24	1.39	1.55	1.67	1.53	1.35	1.16	1.04
Aver-ages	1.21	1.32	1.42	1.55	1.64	1.53	1.40	1.30	1.23

MADISON, WIS.

Air mass

	4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
1	M .89	M .97	M 1.13	----	M 1.21	----	M 1.15	M 1.04	M .96
2	----	----	----	----	----	----	S 1.17	S 1.07	S .97
3	S .99	S 1.03	S 1.16	----	S 1.26	----	S 1.22	S 1.04	S .95
4	S .96	S 1.06	S 1.16	----	S 1.26	----	S 1.20	S 1.04	S .94
11	----	----	----	----	----	----	M 1.00	M .81	M .67
14	S .90	S 1.04	----	----	----	----	----	----	----
16	S 1.00	S 1.07	S 1.11	----	S 1.29	----	S 1.18	S 1.04	S .92
17	M .90	M 1.01	M 1.14	----	M 1.25	----	M 1.15	M 1.03	M .92
18	S .95	S 1.04	S 1.15	----	----	----	----	----	----
20	----	S 1.01	S 1.15	----	S 1.29	----	----	----	----
20	----	S .97	S 1.11	----	S 1.25	----	----	S 1.00	S .92
27	M .92	S 1.05	S 1.17	----	S 1.32	----	S 1.19	S 1.05	S .92
28	----	----	----	----	M 1.13	----	----	----	----
29	S .95	S 1.06	S 1.17	----	----	----	----	----	----
30	----	S .88	S 1.04	----	----	----	----	----	----
Aver-ages	.94	1.01	1.15	----	1.25	----	1.16	1.01	.91

ALBUQUERQUE, N. MEX.

Air mass

	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
1	1.06	1.16	1.27	1.40	1.46	1.39	1.25	1.14	1.03
2	.84	.96	1.12	1.32	1.34	1.32	1.17	1.06	.93
3	.98	1.08	1.23	1.37	1.37	1.35	1.20	1.09	.99
4	----	----	----	----	----	----	----	1.03	.90
5	.99	1.10	1.24	1.36	1.38	1.36	1.20	1.07	.95
6	----	----	----	1.30	1.37	1.38	----	1.10	1.00
7	1.00	1.08	1.21	1.37	1.41	1.36	1.18	1.07	.95
8	----	----	----	1.34	----	----	1.20	1.09	1.00
9	1.02	1.10	1.22	1.40	1.39	1.39	----	----	----
10	.99	(1.10)	1.21	1.35	----	(1.33)	----	(1.01)	----
11	.98	1.08	1.21	1.36	1.38	1.35	1.20	1.07	.97
12	1.04	1.13	1.23	1.33	1.39	----	----	----	----
13	.93	1.05	1.18	1.33	1.37	1.29	1.14	.99	.87
14	1.01	(1.06)	----	1.40	1.43	(1.37)	----	----	----
15	----	----	----	----	----	1.34	1.13	----	----
16	(.84)	(.98)	(1.13)	(1.31)	(1.35)	(1.29)	(1.17)	(1.06)	(.93)
17	----	(1.07)	(1.20)	(1.31)	(1.30)	(1.23)	----	(.94)	(.85)
18	(.98)	(.99)	(1.10)	(1.26)	(1.32)	(1.28)	(1.17)	----	----
20	.96	1.06	1.22	1.35	1.40	1.35	1.24	1.11	1.01
21	.99	1.10	1.25	1.38	1.42	1.39	1.20	1.10	.99
22	----	1.05	1.15	1.27	1.32	1.24	----	.94	.83
23	.91	.83	1.01	1.26	1.34	1.26	----	----	----
24	----	----	(.99)	(1.22)	(1.23)	----	----	----	----
25	----	----	1.12	1.34	1.42	1.37	----	(1.07)	----
26	.95	1.07	1.20	1.33	1.38	1.35	1.19	1.05	.94
28	(.95)	(1.06)	(1.14)	----	----	(1.24)	(1.07)	(.91)	(.71)
29	.91	1.04	1.12	1.33	1.38	1.32	1.17	1.04	.92
30	1.02	1.10	1.24	1.36	1.52	1.27	1.24	1.13	1.00
31	.90	1.01	1.15	1.31	----	----	----	----	----
Aver-ages	.96	1.06	1.19	1.34	1.39	1.34	1.19	1.09	.96

OMAHA, NEBR.

Air mass

	1.78	3.82	2.87	1.91	*	1.92	2.87	3.82	1.78
1	----	----	1.19	----	----	----	----	----	----
2	----	----	1.17	----	(1.29)	----	----	----	----
7	----	1.04	1.10	----	1.29	----	1.37	----	----
8	.96	1.05	1.19	----	1.34	----	----	----	----
9	HS .84	HS .99	1.09	----	1.20	----	----	----	----
11	.99	1.09	1.20	----	1.34	----	----	----	----
13	----	----	----	----	----	----	----	----	----
14	.92	1.02	1.17	----	1.34	----	----	----	----
18	.75	.85	1.45	----	(1.21)	----	----	----	----
19	.91	----	----	----	----	----	1.31	----	----
20	.80	.91	1.01	----	----	----	----	----	----
21	----	----	----	----	----	----	1.10	1.02	.93
22	----	----	----	----	----	----	HS1.13	HS1.05	HS .91
23	1.11	1.19	1.28	----	1.36	----	1.20	1.06	.96
26	.90	1.02	1.11	----	----	----	----	----	----
27	----	----	----	1.17	1.20	1.14	----	----	----
28	----	.91	1.03	1.22	1.28	1.25	----	----	----
29	.97	1.07	1.18	----	1.30	----	----	----	----
31	.99	1.04	----	----	----	----	----	----	----
Aver-ages	.92	1.01	1.17	1.19	1.29	1.19	1.13	1.05	.91

BLUE HILL OBSERVATORY, MASS.

Air mass

	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89

NO DATA RECEIVED

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

JANUARY 1976

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	281	275	269	[illegible]	[illegible]	295	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	71	134	165	241	111	169	166	160	93	142	---	174	---	192	119	194	175	143	195	118	194	--	[illegible]	154	1[illegible]	[illegible]	185	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	120	146	38	85	157	132	64	96	178	175	187	157	148	65	126	134	148	181	[illegible]	23	116	68	[illegible]	194	146	49	30	34	142	[illegible]	[illegible]	131
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	187	[illegible]	167	[illegible]	167	192	196	252	150	271	152	258	212	243	[illegible]	264	[illegible]	[illegible]	[illegible]	[illegible]	244	[illegible]	174	295	314	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	164	[illegible]	171	[illegible]	[illegible]	234	85	66	68	54	161	238	261	282	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	90	193	31	166	171	164	69	157	176	198	67	158	101	182	213	114	[illegible]	[illegible]	[illegible]	144	81	190	180	6	127	70	66	239	[illegible]	[illegible]	181	144
JOHNSTON I., PAC.	413	[illegible]	[illegible]	[illegible]	[illegible]	129	141	79	196	352	416	474	454	491	476	497	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LAS VEGAS, NV	---	---	---	---	---	---	---	---	---	---	---	---	---	240	274	279	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---
MADISON WI	28	37	142	183	168	40	187	189	192	47	156	136	73	162	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIAMI FL	331	[illegible]	[illegible]	[illegible]	86	[illegible]	[illegible]	[illegible]	395	263	[illegible]	311	332	162	165	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NASHVILLE TN	[illegible]	32	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	281	231	49	266	45	292	[illegible]	118	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
OAK RIDGE TN	91	[illegible]	87	[illegible]	[illegible]	[illegible]	50	162	279	239	26	121	22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PAGE AZ	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	236	291	293	292	278	[illegible]	[illegible]	298	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PHOENIX AZ	291	267	[illegible]	244	[illegible]	[illegible]	292	291	228	291	295	267	293	288	295	307	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SEATTLE TACOMA WA	147	58	19	14	26	37	12	58	55	21	40	71	63	19	13	44	[illegible]	157	171	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
STERLING VA	[illegible]	85	23	230	[illegible]	[illegible]	38	138	226	242	28	[illegible]	148	254	222	120	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TALLAHASSEE FL	326	292	175	336	[illegible]	---	---	81	354	347	203	280	276	299	332	286	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NET RADIATION

Net radiation in langleys per day (8 a.m. to 8 a.m.) at Palmer, Alaska

JANUARY 1964

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys	-18	-5	-3	-5	-1	-61	-71	-11	31	-1	17	14	-16	-89	-19	-41	-17	-30	-12	-32	-20	-18	-6	-68	-13	-32	-21	-53	-16	-27	-1	-26

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals as monthly average 2900 Å (U Mass Data)

1964	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys																																

NO DATA RECEIVED

TOTAL OZONE DATA

These provisional ozone data are obtained from measurements made with a Dobson ozone spectrophotometer, and are applicable approximately to local apparent noon. The data are presented in the code described in the August 1962 WMO circular entitled "PUBLICATION OF DATA FOR METEOROLOGICAL RESEARCH, WORLD OZONE DATA".

Units: Milli atm-cms

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean Obs

NO DATA RECEIVED

REFERENCE NOTES

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES: Dates in the table apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

+ And also on an earlier date or dates.
D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile data can be evaluated.

B Number of days maximum 21.1°C. or above for Alaskan Stations.
Y Peak Gust.
+ And also on an earlier date or dates.
U Indicates Urban site.
R Indicates Rural site.
Ø Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publication.

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters
$°F. = \frac{9}{5} \times °C + 32$
1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

° Includes crop damage.
C Crop damage.
* No occurrence of storms or unusual weather phenomena reported.
@ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
Ø For breakdown of "All Others," and for detailed listing of other storms, see the Environmental Data Service, NOAA, monthly publication STORM DATA.
‡ No Storm Data Report received for this State.
<> Report Incomplete.
† Storm damages are placed in categories varying from 1 to 9 as follows:
1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5 Million
7 $5 Million to $50 Million
8 $50 Million to $500 Million
9 $500 Million to $5 Billion.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1/ Flooding continued at the end of the month.
NA Not available.

FLOOD STAGE DATA:

Highest Stage Observed
1/ Continued at end of month
Highest Stage of Record
E Estimated
P Provisional (Flood Stage)
U Unknown

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
+ Observations for these stations are scheduled at 0000 G.C.T.
† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

REFERENCE NOTES

SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

()	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
*	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeter-
BD	Blowing Dust	F	Fog	I	Intense Haze-indeterminable		minable
BN	Blowing Sand	GF	Ground Fog	K	Smoke	N	Sand
D	Dust	H	Haze	KI	Intense Smoke	S	Slight Haze-indeter-
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		minable

SOLAR RADIATION TOTALS: Langley is the unit used to denote one gram calorie per square centimeter.

* Values with an asterisk are interpolated.
Data are only for those stations equipped with Eppley Model II sensors.

NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded $\Omega\ \Omega\ \Omega$) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code $_{\lambda}$s designates the type of measurement made.

DESCRIPTION OF CHARTS

CHART I. A. NORMAL DAILY AVERAGE TEMPERATURE (^{O}F. 1941-70) FOR MONTH. B. TEMPERATURE DEPARTURE FROM 30-YEAR MEAN (^{O}F. 1941-70) FOR MONTH. Chart I-A is reproduced from monthly normals maps prepared at the National Climatic Center. Chart I-B is a reproduction of monthly chart appearing in "Weekly Weather and Crop Bulletin," a publication of Environmental Data Service.

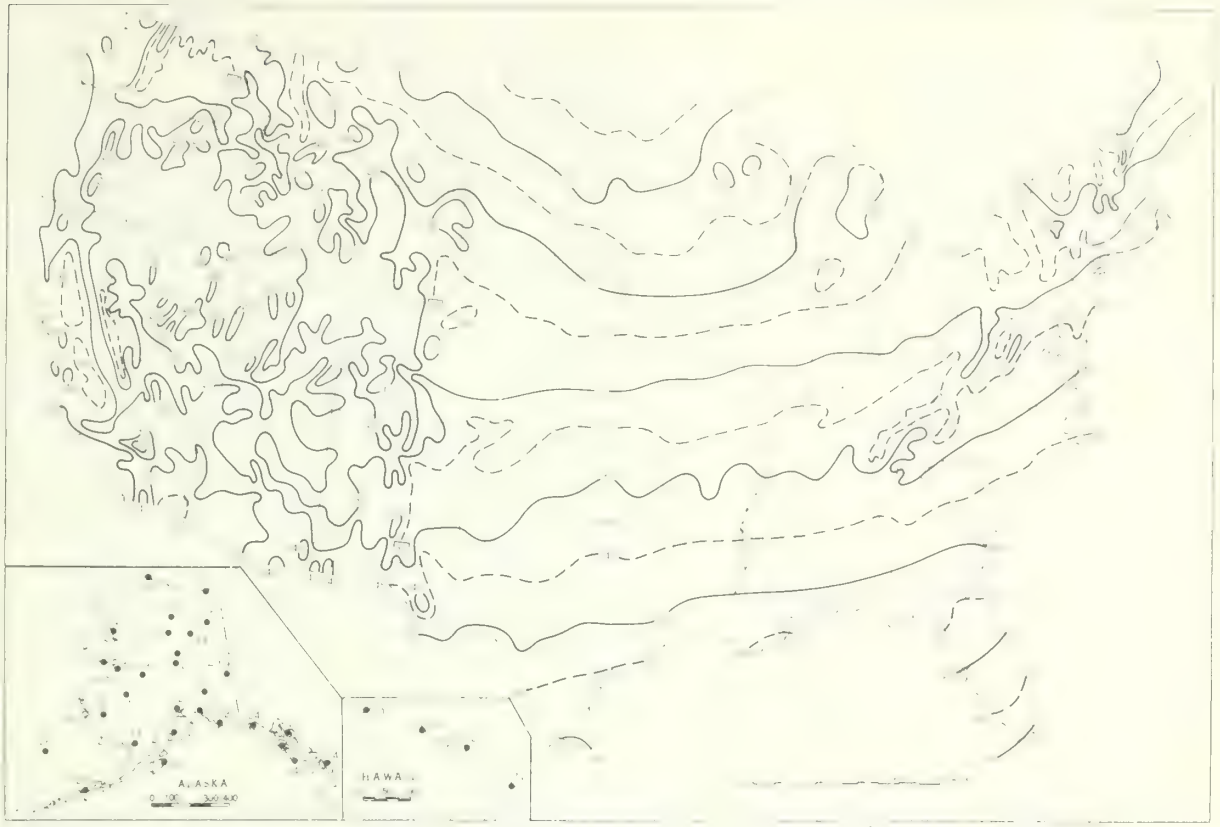
CHART II. A. TOTAL PRECIPITATION. Chart II. A. is a reproduction of monthly chart appearing in "Weekly Weather and Crop Bulletin."

CHART II. B. PERCENTAGE OF NORMAL PRECIPITATION. Chart II. B. is a reproduction of monthly chart appearing in "Weekly Weather and Crop Bulletin."

CHART III. TRACKS OF CENTERS OF ANTICYCLONES AT SEA LEVEL.

CHART IV. TRACKS OF CENTERS OF CYCLONES AT SEA LEVEL. Centers which can be identified for 24 hours or more are tracked in these charts. Semi-permanent features such as the Great Basin and Pacific Highs and Colorado and Mexico Lows are not shown. The 7:00 a.m., e.s.t., positions are shown by open circles, with the intermediate positions at 6-hour intervals shown by X's. The date is given above the circle and the central pressure to whole millibars below. A dashed track indicates a regeneration rather than actual movement to the next position. Squares indicate position of stationary center for period shown beside it.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), January



B. Temperature Departure from 30 - Year Mean (°F 1941-70), January 1976

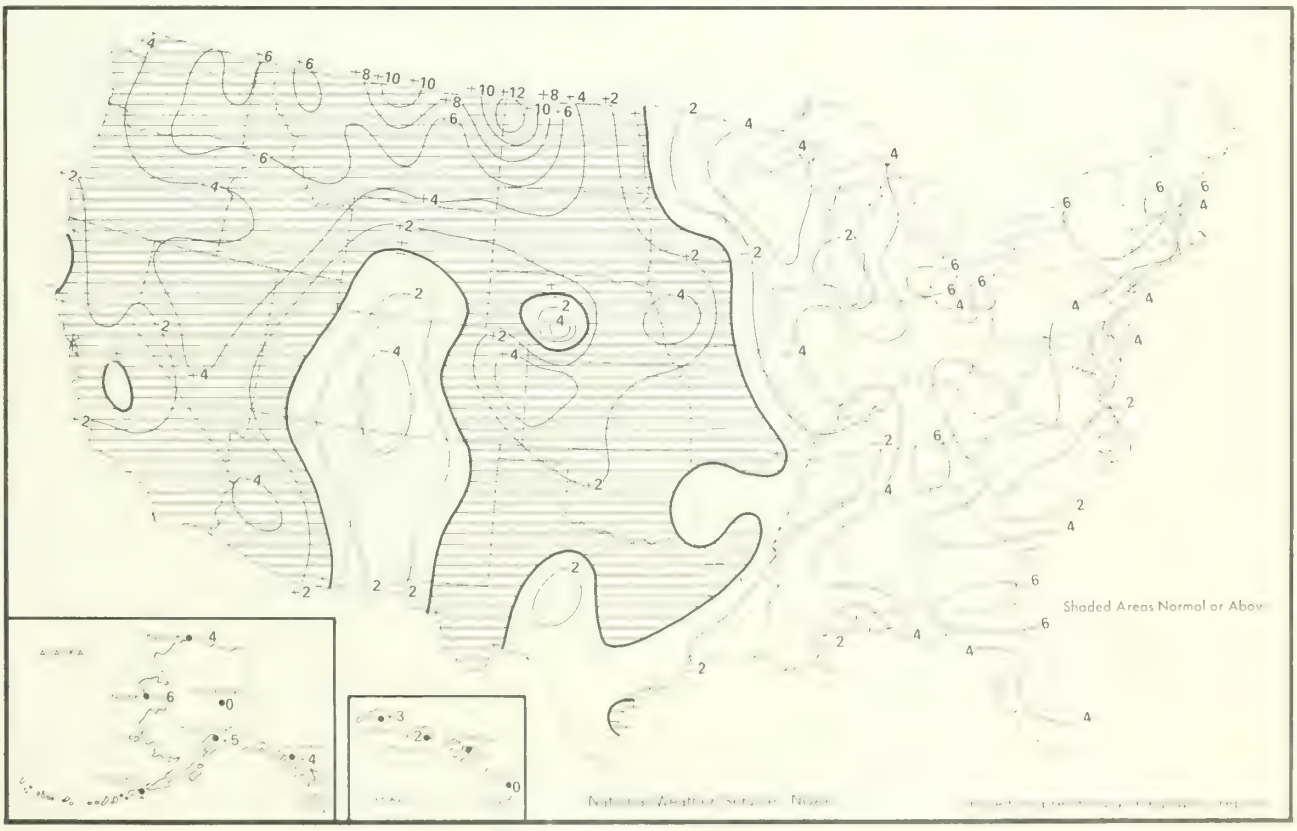
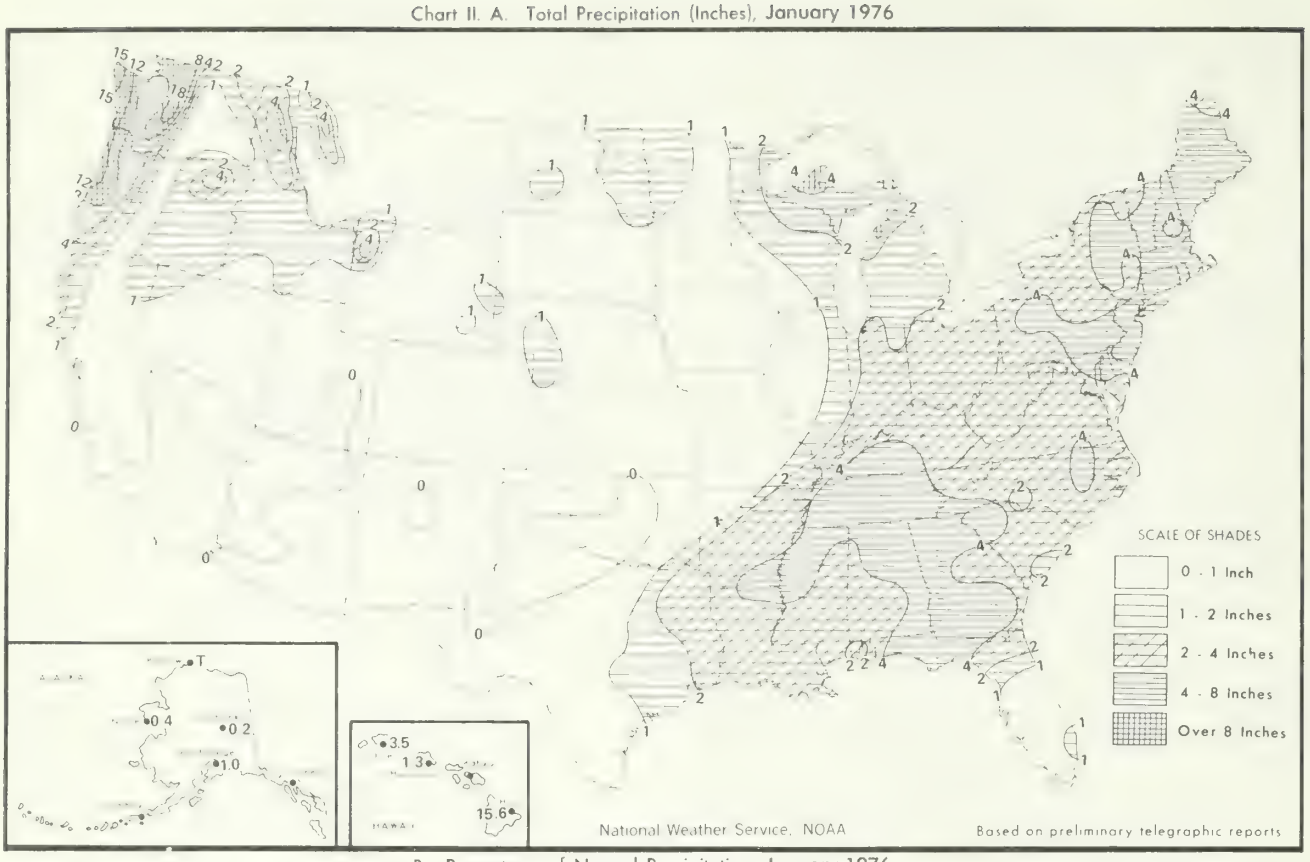
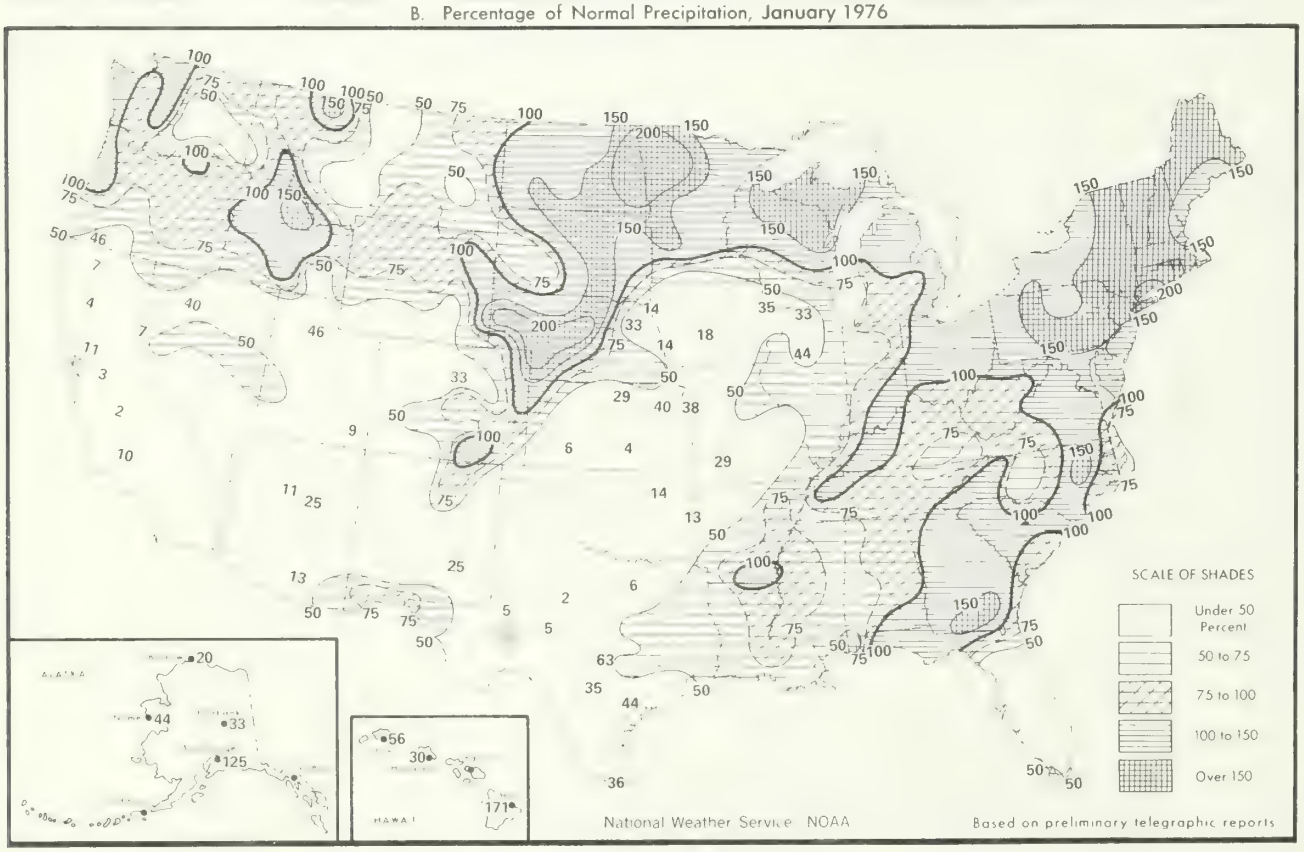
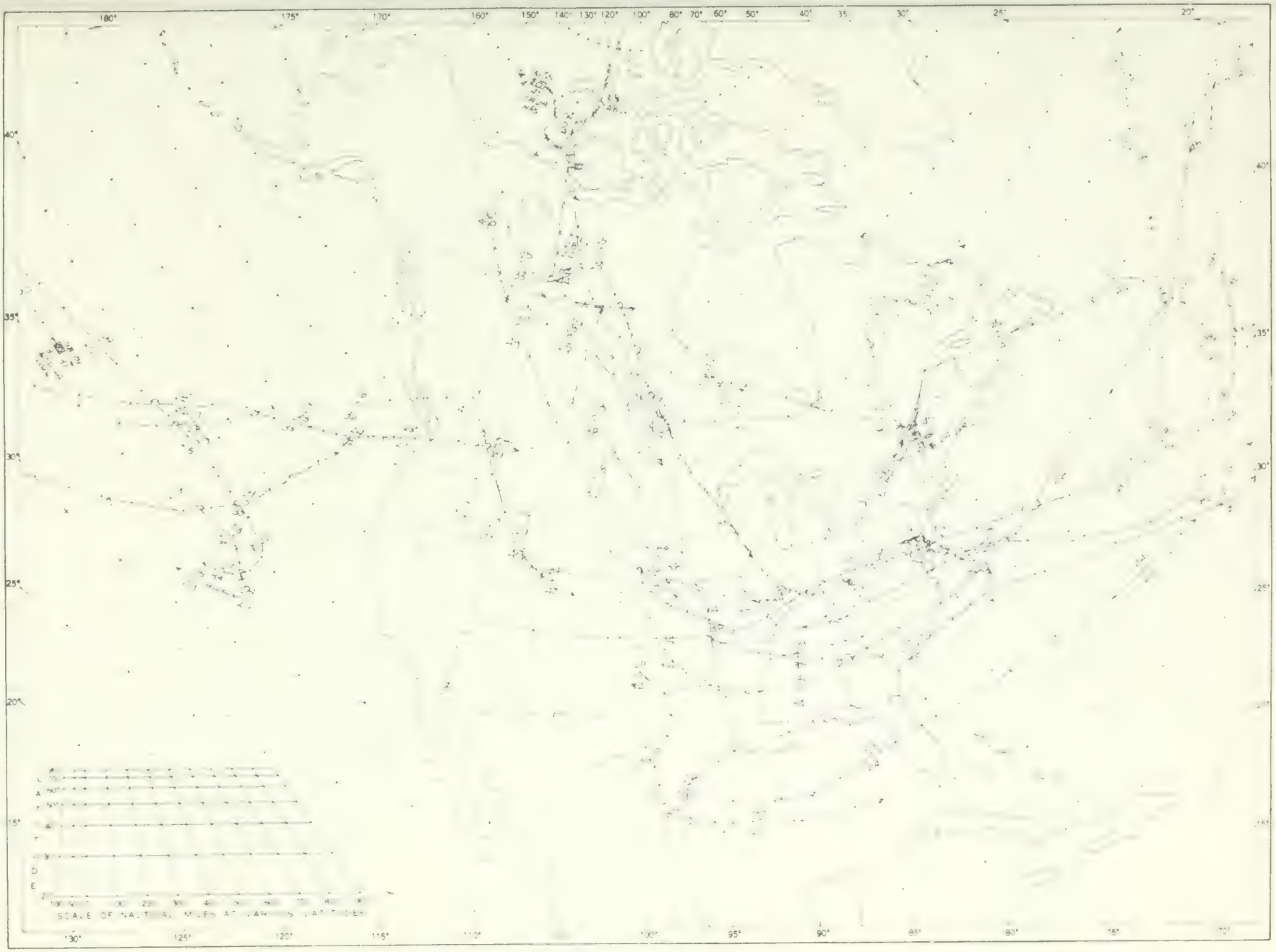


Chart II. A. Total Precipitation (Inches), January 1976



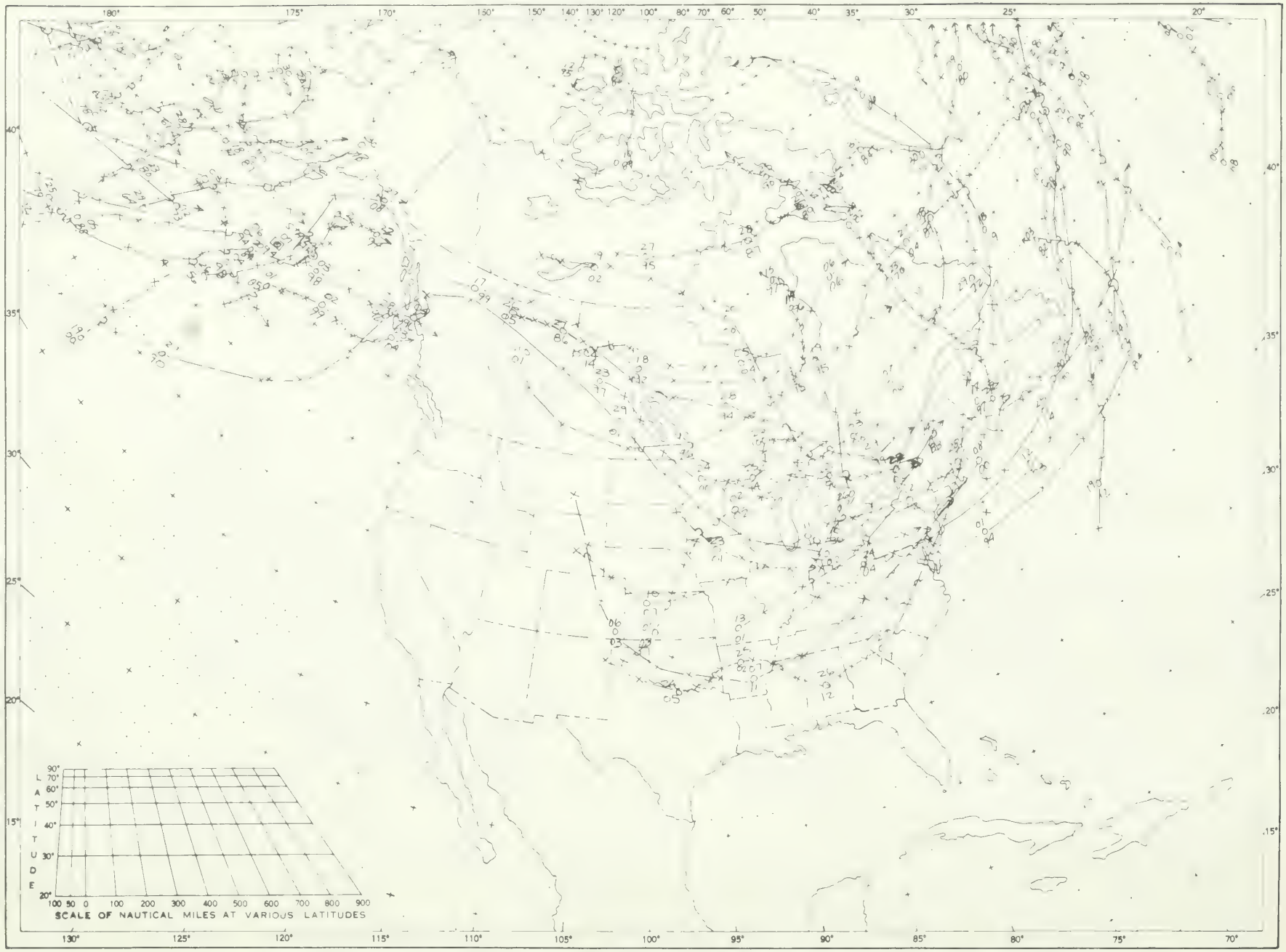
B. Percentage of Normal Precipitation, January 1976





Circle indicates position of center at [illegible] E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. X's indicate intervening 6 hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IV Tracks of Centers of Cyclones at Sea Level, January 1976



Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar.

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FEBRUARY 1976 VOLUME 27 NUMBER 2

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

"I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND IS COMPILED FROM INFORMATION RECEIVED AT THE NATIONAL CLIMATIC CENTER, ASHEVILLE, NORTH CAROLINA 28801."

Thomas D. Potter

DIRECTOR
NATIONAL CLIMATIC CENTER

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

FEBRUARY 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

GHLIGHTS: Above normal temperatures that enveloped l but the extreme northwestern portion of the Na- on highlighted February's weather patterns. Monthly adings averaged up to 10 to 12° above normal in ntral United States, up to 15° above in Montana, d up to 10° above normal across to the east central ates. Cold air remained north, occasionally dip- ng into the Great Lakes area, and then moved east- rd. Precipitation was less than 50% of normal in e already dry portions of the southern High Plains. ch needed rain finally came to California, especi- ly in the southern portion, where irrigation water pplies were diminishing rapidly. Much above normal ecipitation fell in all of the major corn producing ates from Ohio to eastern Nebraska. Southern nnesota remained dry. In general, precipitation tterns should assure adequate soil moisture for ring planting.

bruary began on a dry note and significant precipi- tion was confined to the area east of the Appala- ians. However, in the week ending on the 10th a mistationary Pacific storm system off the southern lifornia Coast began pouring moisture-laden air to the Southwest. Rain fell in all but extreme rthern California and some areas of southern Cali- rnia recorded more than 4 inches. New snow in me mountain areas measured 3 feet or more. Mean- me, rain bypassed the High Plains and was scarce most other areas. Weekly temperatures were cold, cept in the Southwest. Midwestern readings ranged much as 9° below normal. In the Plains Chinook nds boosted temperatures as much as 30° in places.

the following week, ending near mid-month, rain ntinued in California and spread throughout the State and the West. Light precipitation dampened parts of the southern High Plains---winter wheat country---but accompanying winds only provoked fur- ther erosion. Texas, the southern part of the Gulf States, the Southeast, and Florida recorded no pre- cipitation. All areas east of the Rockies measured less than 1 inch of precipitation. Continued warm temperatures in portions of the Plains averaged as high as 18 to 20° above normal.

During the week of the 18th-24th warm weather con- tinued across the country, except in the Plateau area, where temperatures averaged to 3° below normal. In the Ohio River Valley and middle Eastern States temperatures averaged 15 to 20° above normal. Pre- cipitation was concentrated in the Ohio and lower Mississippi Valleys and the eastern Great Lakes area where more than 2 inches fell. Up to 0.5 inches of snow in Kansas was soon swept from wheat fields by high winds, which only resulted in further erosion.

The last week in the month was very dry and warm. The only significant precipitation occurred in the Northwest, where 2 inches was recorded along the Coast from northern California into Washington and over the southern tip of Florida, where the area a- round Miami received over 2 inches. Lesser amounts fell in the northern Rockies and along the northern border States. No precipitation was recorded in at least three-fourths of the country. Nearly all of the Nation measured above normal temperatures. Readings up to 18° above warmed many areas of the Midwest to record high levels.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In
[illegible]	Talladega	84	27	[illegible]	12	7	Red Bay	5.21	Pittsview	1 3
Alaska	[illegible]	60	1	Old Man	-61	11	Little Port Walter	18.30	3 Stations	0
Arizona	2 Stations	82	29	2 Stations	- 2	22	Crown King	11.57	2 Stations	0
Arkansas	Conway	82	25	2 Stations	1	7	Dermott 3 NE	6.36	[illegible] 1 NW	0
California	[illegible] Col	92	1	Bridgeport	-15	11	Branscomb 3 NNW	17.88	Williams	1
Colorado	Holly	81	10	Taylor Park	36	22	Fruita	6.56	7 Stations	1
Connecticut	[illegible]	70	25	2 Stations	9	7	Wigwam Reservoir	4.05	Coventry	2 1
Delaware	Newark University Farm	79	17	[illegible]	1	2	Milford 2 WSW	2.08	Middletown 1 WSW	0
Florida	La Belle	89	24	2 Stations	18	8	Ft Lauderdale Exp Sta	6.18	Titusville	1
Georgia	3 Stations	89	29	[illegible]	10	9	Clayton 1 SSW	3.44	Savannah Beach	2
Hawaii	Keawakapu Beach 260.2	80	21	Mauna Loa Slope Obs	25	1	Hilo Country Club 86.6	31.30	Mauna Kea Obs 111.2	.
Idaho	[illegible]	70	26	[illegible]	-28	5	Wallace Woodland Park	5.56	May	.
Illinois	Cahokia	86	14	Rockford WSO AP	-22	2	Watseka 2 NW	4.66	Waterloo	0
Indiana	Edwardsport Power Pl	88	29	Wheatfield 2 NNW	-18	5	South Bend WSO AP	5.25	Greenfield	1 1
Iowa	Keosauqua	91	24	4 Stations	-42	6	Red Oak	5.29	Estherville 2 N	1
Kansas	2 Stations	80	10	Webster Dam	- 1	1	Centralia	1.96	3 Stations	0
Kentucky	Pikeville	85	29	3 Stations	0	2	[illegible]	9.19	Blaine	0 1 1
Louisiana	[illegible]	86	28	Ashland 2 S	22	8	Abita Springs Fire Tower	6.65	Rockefeller WL Refuge	.
Maine	[illegible]	64	27	Clayton Lake 2	29	6	Vanceboro 2	5.12	Presque Isle	2 7
Maryland	La Plata 1 W	80	17	3 Stations	10	5	Oakland 1 SE	5.13	[illegible] 2	0
Massachusetts	Chester 2	72	23	Birch Hill Dam	12	7	Cummington Hill	3.77	Edgartown	2 0
Michigan	2 Stations	69	28	Vanderbilt 11 ENE	-38	2	Whitefish Point	4.35	[illegible]	0
Minnesota	[illegible]	61	25	[illegible]	11	2	Cokato	5.19	Tracy	0
Mississippi	Monticello	82	18	2 Stations	16	8	Charleston	6.76	Union	0
Missouri	[illegible] 2 NW	81	14	3 Stations	- 5	4	Portageville WSASO	6.54	Bunker	2
Montana	[illegible]	64	24	2 Stations	-33	6	Summit	6.17	4 Stations	0
Nebraska	8 Stations	98	28	Agate 3 E	18	6	[illegible]	2.78	7 Stations	.
Nevada	Sunrise Manr Las Vegas	80	28	[illegible]	7	6	Elgin 3 SE	1.59	Brinkerhoff Ranch	1
New Hampshire	[illegible]	66	25	Mount Washington	24	2	Mount Washington	12.81	Claiton	2 0
New Jersey	Chatsworth	95	29	2 Stations	- 4	7	Long Valley	3.43	Glassboro	1 7
New Mexico	Jal	85	20	Red River	12	22	Beaverhead Ranger Station	3.10	2 Stations	0
New York	New York Laurel Hill	71	25	2 Stations	-26	2	Boonville 2 SSW	6.37	Prattsburg 2 NW	1 2
North Carolina	2 Stations	83	18	[illegible]	3	2	Nantahala	5.91	[illegible] 1 SW	7
North Dakota	Fort Yates	66	24	Hannah 2 N	33	29	Bottineau	2.31	2 Stations	1
Ohio	Gallipolis	76	29	2 Stations	-15	4	Dorset	0 1.45	New Carlisle	1 2
Oklahoma	2 Stations	87	30	Jay	2	7	Boise 2 E	1.96	3 Stations	0
Oregon	Cascadia	71	25	Seneca	21	1	Valsetz	24.13	Brothers	3
Pennsylvania	Phoenixville 1 E	78	26	Philipsburg FAA AP	-15	1	Meadville 1 S	5.17	Hyndman	9
Puerto Rico	2 Stations	94	11	[illegible]	49	24	Guavate Camp	11.50	Puerto Real	0
Rhode Island	Providence WSO AP	69	25	Kingston	7	7	Woonsocket	3.27	Newport	2 4
South Carolina	Ridgeland 5 NE	81	18	Caesars Head	11	2	Hogback Mountain	4.38	Edisto Island 5 SW	.
South Dakota	3 Stations	71	26	Deerfield 4 NW	-42	6	Conde	1.93	Lake Sharpe Project	0
Tennessee	[illegible]	79	29	Tazewell	2	2	Samburg Wildlife Ref	5.51	Newport	1 9
Texas	Zapata	95	26	Waterloo	6	23	Center	5.06	72 Stations	0
Utah	Saint George	71	28	Woods Ll	27	6	Alta	0 6.85	Dewey	0
Vermont	3 Stations	66	26	Mount Mansfield	-26	4	Mount Mansfield	5.77	Huntington Center	1 9
Virginia	3 Stations	81	18	Big Meadows	-10	2	Pennington Gap	4.63	Washington	2
Virgin Islands	2 Stations	86	13	Annaly	61	18	Bordeaux Mountain	4.74	Windberg	1 0
Washington	4 Stations	69	22	2 Stations	- 7	5	Spruce	22.12	Prosser 4 NE	1
West Virginia	Moorefield 2 SSE	79	29	Spruce Knob	-13	2	Pickens 1	4.49	Moorefield 2 SSE	5
Wisconsin	2 Stations	67	28	Prentice 1 N	-39	2	Shawano	3.04	River Falls	2
Wyoming	2 Stations	66	26	Lamar Ranger Station	12	6	Snake River	4.51	Basin	1

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear 0-3	No. of days (sunrise to sunset): Partly cloudy 4-7	No. of days (sunrise to sunset): Cloudy 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
ALABAMA																																	
BIRMINGHAM	189	998.6	1021.7	19.9	4.8	12.4	4.1	26.1	17	-5.6	8	0	6	5.6	65	48	-88	17	5	2			1.8	22	15.6	05	18	7	12	10	5.8	58
HUNTSVILLE	190	997.3	1021.7	17.1	3.8	10.4	3.9	23.3	17	-7.2	2	0	10	3.9	68	85	+46	41	5	2			1.7	21	19.2	05	18	4	5	15	6.1	
MOBILE	64	1013.5	1021.4	22.0	8.4	15.2	3.0	27.2	28	-2.2	8	0	1	8.9	76	60	+61	25	4	2			1.1	19	13.3	27	21	3	4	14	6.4	
MONTGOMERY	59	1013.9	1021.9	21.6	4.8	12.7	2.4	25.0	29+	-4.4	8	0	5	5.0	63	44	+65	24	5	2			1.3	25	15.6	24	18	11	14	4	4.2	59
ALASKA																																	
ANCHORAGE	35	1002.7	1017.8	-6.2	-15.2	-10.7	-2.8	6.1	4	-25.0	12	0	27	-15.6	66	8	+13	5	2	1	46	269	1.3	3	10.7	25	2	24	5	12	5.4	63
ANNETTE	34	1004.4	1018.5	3.8	-1.3	1.2	-1.4	7.2	24+	-11.7	29	0	18	-3.3	74	352	.7	9	2	1	572	203	2.1	14	11.1	16	7	5	5	19	7.2	
BARROW	9	1020.0	1020.4	-27.0	-33.4	-30.5	-2.4	-18.2	27	-40.6	26	0	29	-37.2	55	2	+3	1	1	0	18	11	3.8	29	9.8	11	7	13	5	11	4.6	
BARTER ISLAND	12	1018.0	1020.0	-27.3	-33.9	-30.7	-2.1	-7.8	1	-43.3	20	0	29	-33.9	73	8	0		0	0	6	6	4.2	27	25.7	24	2	13	5	11	6.9	
BETHEL	38	1005.4	1011.6	-17.8	-25.8	-21.6	-8.7	2.8	5	-38.3	8	0	29	-26.1	67	11	+8		0	0	142	305	4.3	1	14.5	24	2	13	4	14	5.1	
BETTLES	196			-23.2	-34.8	-29.0	-6.9	-3.9	5	-50.6	8	0	29			34	17	15	6		170	889			8.9	15	5	2	2	5	2.4	
BIG DELTA	386			-16.6	-29.4	-23.0	-7.1	6.1	5	-43.3	9	0	28			2	+5	2	2		38	203										
CAPE BAY	29	1002.0	1016.5	-1.1	-7.9	-4.5	-2.4	4.4	24+	-19.4	25	0	28	-6.1	87	73	7	16	26	4	494	889	1.7	2	19.7	11	18	1	0	29	8.6	
FAIRBANKS	133	997.3	1015.9	-16.7	-32.1	-25.4	-6.2	3.9	5	-42.2	9	0	29	-31.1	64	7	-13	7	1	0	13	381	0.8	1	9.4	20	18	24	1	7	2.8	
GULKANA	479			-13.8	-27.3	-20.5	-4.9	5.2	5	-40.0	21	0	29			4	+8	2	3		51	406										
HOMER	19	1003.1		-1.9	-10.4	-6.2		6.1	4	-17.2	6	0	25			9	-30	6	8		96	178	1.4	7	10.7	24	7	8	0	15	6.3	
JUNEAU	4	1007.5	1008.3	-0.3	-6.6	-3.4	-1.2	5.6	1	-17.2	29	0	27	-7.8	74	147	35	34	15	1	866	406	2.5	11	14.3	12	7	6	4	19	7.4	44
KING SALMON	15	1005.1	1007.2	-8.7	-18.8	-13.7	-5.2	6.7	24+	-37.8	29	0	26			25	-1	11	10	0	41	127	2.3	3	17.5	14	2	10	4	15	6.6	
KODIAK	4	1000.3	1004.8	-0.5	-5.8	-2.6	-2.3	4.4	29+	-13.9	8	0	26	-5.6	77	75	+49	14	17	1	351	178	2.5	32	19.2	30	8	4	4	18	7.0	
KOTZEBUE	3	1017.6	1018.1	-23.6	-31.6	-27.6	-7.4	-3.0	3	-39.4	14+	0	29	-32.8	63	5	-2	2	1	0	69	46	1.7	35	17.9	30	20	5	2	3	2.6	
MCGRATH	105	1001.7	1014.7	-18.6	-35.6	-27.1	-9.2	3.3	5	-46.7	12	0	29	-31.1	71	34	11	25	5	1	44	889	0.4	35	7.6	36	0	15	8	7	3.7	
NOME	6	1015.2	1015.9	-18.9	-32.2	-25.6	-10.7	0.0	3	-39.4	8+	0	29	-28.9	76	8	-14	5	5	1	111	305	1.1	5	13.9	9	2	10	6	15	3.8	1
ST. PAUL ISLAND	7	1008.8	1009.8	-9.4	-16.2	-12.8	-7.8	1.7	2	-23.9	17	0	29	-15.6	76	20	-14	11	9	1	201	330	4.2	6	23.1	7	5	10	5	14	6.2	
SUMMIT	731			-15.4	-23.6	-19.5	-5.4	0.6	5+	-33.3	14+	0	29			28	+3	13	7	1	498	1219			19.4	23	27	1	8	9	8.8	
TALKEETNA	105			-6.4	-21.4	-13.9	-4.6	1.7	5	-38.3	11	0	29			28	-18	11	5	0	485	965			11.7	3	0					
UMIAT	6																	2				699										
VALDEZ	7	1006.8		-4.2	-9.8	-7.0	-1.7	1.2	1	-15.6	10	0	29			58	-77		10		843		3.1	6	18.0	24	8	10	1	14	6.4	
YAKUTAT	9	1005.1	1006.2	-3.1	-9.2	-6.7	-2.4	3.3	24+	-21.1	29	0	26	-6.7	84	148	+88	35	19	1	905	1448	2.0	9	11.6	16	23	7	1	17	7.3	
ARIZONA																																	
FLAGSTAFF	2135	787.3	1018.4	6.4	-5.1	1.7	2.6	17.2	28	-10.6	25	0	27	-7.2	56	151	114	58	11	1	792	686	1.5	21	12.5	5	4	8	0	19	4.1	67
PHOENIX	339	978.0	1017.1	22.5	9.4	15.9	3.1	28.9	29	4.4	21	0	0	0.6	43	12	+3	4	3		0		1.2	13	16.5V	3	29	4	7	21	5.8	76
TUCSON	788	927.9	1016.1	21.5	7.8	14.7	2.7	27.8	24+	-0.6	21	0	1	-1.7	41	13	+4	6	4	0	0		1.7	16	15.6	16	22	15	2	12	4.8	80
WINSLOW	1492	853.0	1019.7	14.2	-2.7	5.8	1.8	21.1	29	-9.4	22	0	22	-5.6	53	11	2	9	2	3	7		1.7	21	14.8	21	9	9	8	11	5.1	
YUMA	59	1009.5	1016.9	22.9	9.3	16.1	0.9	28.9	28	6.1	25+	0	0	3.3	51	31	24	16	4	1			0.8	6	11.6	16	24	11	10	8	4.7	76
ARKANSAS																																	
FORT SMITH	136	1001.0	1017.7	18.7	2.0	10.4	4.1	26.7	15	-11.1	7	0	11	1.7	0	18	-64	11	3	2	0	1	1.0	26	17.9	6	20	7	8	14	6.1	62
LITTLE ROCK	79	1009.1	1018.7	18.3	4.4	11.4	5.3	25.6	27	-7.8	7	0	8			91	-21	41	6	2	4	1	2.0	32	20.6	36	21	8	2	21	6.4	
CALIFORNIA																																	
BAKERSFIELD	145	1001.4	1018.9	17.9	8.2	13.1	1.7	26.1	23	2.6	21	0	0	5.6	68	42	15	14	10	1	2	0	0.6	3	12.5	16	24	8	10	11	5.7	
BISHOP	1252	874.4		13.2	-4.1	4.6	-0.7	22.2	28+	-9.4	12+	0	29			35	8	18	5		343	381			22.8V		24	11	7	11	6.3	
BLUE CANYON	1402	838.1	1018.0	6.6	-1.2	2.7	-0.3	17.8	1	-8.9	5+	0	21	-4.4	68	192	+47	6	14		945	254	1.8	17	13.4	21	18	9	4	17	6.1	
EUREKA	13			11.8	4.8	8.3	-0.8	20.0	22	-0.6	6	0	1			191	60	39	15		0	0			14.8	8	4	7	3	19	7.1	45
FRESNO	100	1007.5	1019.3	25.5	4.0	9.8	-0.2	22.2	1	0.6	21+	0	0	6.1	81	120	76	38	11	1	1	0	0.2	4	14.8	36	13	8	4	11	6.1	66
LONG BEACH	8	1015.6	1017.9	20.2	10.1	15.2	2.1	28.3	1	6.7	20	0	0	8.9	72	61	6	21	8	1	0	0	0.6	16	10.3	19	4	6	6	13	6.1	
LOS ANGELES	30	1014.2	1017.7	18.9	9.8	14.4	1.3	26.1	22	6.7	21	0	0	8.3	76	55	-4	26	8	1	0	0	0.6	20	17.9V	19	5	8	8	14	6.4	
LOS ANGELES	82			18.3	8.9	13.6	-0.9	28.3	1	5.6	21+	0	0			94	24	37	8		0				9.8	14	19	11	7	11	5.6	57
MT SHASTA	1080	892.7	1019.6	8.0	-0.7	2.7	-0.6	15.2	3	-12.2	5	0	21	-4.4	66	73	+70	25	13		249	51	0.8	11									
OAKLAND	2	1015.3	1019.7	14.8	6.9	10.4	-0.6	18.9	2	0.0	5	0	1	7.2	83	51	-21	27	11	0	15	1	0.7	16	9.8	4	5	4	2	12	5.4	
RED BLUFF	104	1005.8	1018.5	15.3	3.8	9.6	-0.4	22.8	2	-1.1	21	0	3	1.7	66	24	+56	11	11	1	0	0	0.4	21	14.8	32	25	16	3	16	6.8	58
SACRAMENTO	5	1018.3	1019.1	16.7	5.4	11.1	1.2	20.8	26	0.0	5	0	1	5.0	73	38	+30	17	8	1	1	51	1.4	32	12.1	36	3	7	8	14	6.7	77
SANDBERG R	1377	862.9		9.1																	59	584			21.8	36	10					
SAN DIEGO	4	1017.3	1018.1	19.2	11.5	15.3	1.6	27.2	1	7.2	22	0	0	8.3	66	137	100	46	8	0	1	0	0.8	23	16.1	5	24	7	7	13	6.2	61
SAN FRANCISCO	7	1018.6	1019.4	14.6	8.9	10.3	-0.4	21.1	1	1.1	5	0	0	5.0	71	54	-23	34	11	2	1	1	1.4	27	12.5	21	24	8	2	19	6.4	
SAN FRANCISCO	14			14.4	8.7	11.6	-0.3	21.7	2	2.2	5	0	0			46	+29	20	11		0											
SANTA MARIA	72			18.2	4.8	11.4	0.3	27.2	1	0.0	23+	0	2			112	51	44	12		0								1	6	11	5.6	
STOCKTON	7	1018.0	1019.1	16.2	4.8	10.4	0.9	22.2	24+	0.6	5	0	0	5.0	78	31	-22	11	10	1	8	1	0.8	27	10.2	17	24	6	8	16	6.7	
COLORADO																																	
ALAMOSA	2297	770.7		7.9	-10.4	-1.2	3.9	14.4	29	-18.9	22	0	29			8	2	2	5		46	25	1.9	19				10	11	9	5.2	

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile 1.6 kilometers: Speed	Wind: Fastest mile 1.6 kilometers: Direction	Wind: Fastest mile 1.6 kilometers: Date	No. of days (sunrise to sunset): Clear, 0.3	No. of days (sunrise to sunset): Partly cloudy 4.7	No. of days (sunrise to sunset): Cloudy 8.10	Sky cover, tenths, sunrise to sunset	Possible sunshine
	m	mb	mb	°C	°C	°C	°C	°C		°C				°C	%	mm	mm	mm			mm	mm	m/s		m/s							%
COLORADO																																
COLORADO SPRINGS	1873	808.3	1015.7	21.7	-4.3	3.2	3.6	29.4	[illegible]	-16.1	5	0	25	-12.8	36	5	-3	2			142	102	1.0	35	17.7	24	6	14		12	5.1	
DENVER	1611	834.1	1014.1	22.3	-4.2	4.1	3.6	20.0	28+	-17.2	6	0	26	-10.0	42	14	-8	14	3	3	262	127	1.3	24	15.5	24	6	12		13	5.4	60
GRAND JUNCTION	1475	853.1	1018.9	29.7	-2.0	13.4	2.6	38.9	29	-10.6	21	0	25	-4.4	60	21	5	6	7	4	102	51	0.8	12	34.8	24	6	8		18	4.4	69
PUEBLO	1428	858.7	1015.2	14.3	-5.3	4.6	3.1	22.8	28	-19.4	24+	0	26	-17.0	43	3	-5	2	2		46	51	2.1	31	28.2	24	6	13		11	5.3	87
CONNECTICUT																																
BRIDGEPORT	2	1014.9	1015.6	7.6	-2.8	2.4	3.3	19.4	28	-12.2	7	0	17	-3.3	76	81	17	36	1	1	79	51	2.8	29	28.1	25	2	8	7	14	5.9	
HARTFORD	59	1007.8	1014.5	7.8	-4.7	1.6	4.4	21.1	28	-16.7	7	0	21	-6.1	69	79	-2	35	1	1	107	102	1.7	26	15.2	36	28	8	6	15	5.2	66
DELAWARE																																
WILMINGTON	23	1013.9	1016.8	21.0	-0.8	5.1	5.2	31.1	27	-12.8	2	0	17	-2.8	60	49	-27	16	8	2	44	5	2.1	27	17.4	21	2	8	8	13	6.2	
DISTRICT OF COLUMBIA																																
WASHINGTON DULLES	88	1005.1	1010.9	12.6	-2.5	5.1	4.1	23.3	17	-13.9	1	0	20	-2.8	58	34	-37	14	7		5	T	2.1	24	14.3	21	2	8	12	11	5.8	
WASHINGTON NATIONAL	3	1014.4	1017.1	14.4	2.1	8.3	5.3	26.1	17	-11.7	2	0	11	-1.7	57	39	-23	16	7		13	25	1.6	26	16.1	21	2	8	8	13	6.1	63
FLORIDA																																
APALACHICOLA	6	1021.3	1022.5	19.6	8.5	13.8	0.6	34.4	27	-1.7	8	0	2	10.0	82	72	-84	37	4	1	0	0	0.2	23	11.2	21	24	15	8	8	3.9	75
DAYTONA BEACH	9	1021.3	1021.8	22.9	9.4	16.2	0.8	28.3	30+	0.0	3	0	1	10.6	71	18	-56	8	6	2	0	0	0.1	32	13.6	25	1	10	6	15	4.1	
FORT MYERS	5	1021.3	1021.8	24.8	11.9	18.3	0.2	28.9	29+	2.8	3	0	0	12.2	73	30	-21	16	6	2	0	0	0.8	5	13.6	24	1	7	7	16	4.1	
JACKSONVILLE	8	1021.0	1021.8	22.2	6.6	14.4	0.4	27.8	28	-1.1	14+	0	4	8.9	74	27	-66	18	3	2	0	0	0.8	28	18.1	36	1	10	7	14	3.8	64
KEY WEST	1	1020.0	1021.7	24.1	18.7	21.5	-0.5	27.2	29+	13.9	3	0	0	16.1	70	55	9	46	3	1	0	0	3.1	6	16.1	9	1	14	8	9	3.4	87
LAKELAND	65	[illegible]	[illegible]	24.4	11.6	18.1	1.3	29.4	24	2.8	8	0	0	[illegible]	[illegible]	71	-57	25	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10	8	13	4.1	68
MIAMI	2	1021.0	1021.4	26.3	16.4	20.4	0.6	32.2	26+	7.8	9	0	0	15.6	75	9	4	4	4	1	[illegible]	[illegible]	1.7	9	13.4	31	1	12	8	8	4.3	
ORLANDO MCCOY AFB	28	1018.3	1022.1	24.6	10.4	17.6	1.6	30.1	24+	0.6	3	0	0	13.6	68	61	-56	14	5	1	[illegible]	[illegible]	0.6	36	14.3	34	1	13	8	8	4.3	
PENSACOLA	34	1017.6	1021.6	21.7	9.3	15.6	2.3	24.4	28+	-1.1	8	0	1	8.9	71	78	-41	44	5	3	[illegible]	[illegible]	0.8	24	18.7	35	26	15	6	9	4.2	
TALLAHASSEE	17	1019.6	1022.1	22.6	4.8	13.8	1.1	27.8	14	-6.7	8	0	7	7.3	73	31	-98	21	4	[illegible]	0	0	0.4	34	12.1	18	1	14	8	9	3.8	
TAMPA	4	1021.7	1021.9	23.8	10.7	17.3	0.7	28.3	25	2.2	6	0	0	13.6	69	12	-66	11	3	1	0	0	0.3	2	12.5	27	1	15	5	9	4.4	71
WEST PALM BEACH	5	1020.7	1021.5	24.2	13.8	19.1	0.1	28.3	27	5.0	9	0	0	12.8	60	117	51	41	7	2	0	0	1.4	9	12.5	27	1	6	4	8	5.1	
GEORGIA																																
ATHENS	244	990.9	1020.6	18.9	3.7	11.3	3.8	25.6	26	-3.9	8	0	10	2.8	61	53	-63	29	5	1	0	0	1.9	24	17.8	29	1	12	11	8	4.4	
ATLANTA	308	983.1	1020.3	18.4	3.3	10.8	3.6	28.0	29+	-7.8	8	0	8	1.1	54	47	-65	24	5	1	7	4	2.1	25	21.6	36	28	12	10	7	4.5	76
AUGUSTA	41	1015.2	1020.5	21.2	2.8	12.1	3.0	26.7	15	-5.6	8	0	9	3.9	65	64	-71	11	4	1	0	0	1.4	28	13.2	18	18	10	8	12	4.3	
COLUMBUS	117	1006.8	[illegible]	20.7	4.4	12.6	2.9	26.1	28	-5.0	8	0	7	4.4	65	43	-71	25	5	1	0	0	1.0	26	9.4	27	14	10	8	12	3.9	
MACON	108	1007.4	1021.[illegible]	21.3	4.1	12.7	2.5	27.2	27	-6.1	8	0	8	5.0	67	45	-96	11	4	1	0	0	1.2	24	19.2	34	18	15	7	7	4.1	71
ROME	194	[illegible]	[illegible]	23.6	6.7	15.7	3.0	29.5	26	-7.8	8	2	15	[illegible]	[illegible]	41	-91	25	6	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SAVANNAH	14	1019.6	1021.6	20.8	6.9	13.8	2.4	26.7	14+	-2.8	8	0	3	6.1	67	31	-41	18	3	1	0	0	1.1	24	18.8	36	1	15	8	8	4.5	87
HAWAII																																
HILO	8	1015.9	1017.2	25.5	18.1	21.8	0.1	28.3	5	15.0	4+	0	0	17.8	81	295	-32	38	24	3	0	0	1.1	15	11.6	1	13+	1	7	21	8.1	55
HONOLULU	2	1015.9	1016.4	26.4	18.1	22.2	-0.4	29.8	14+	11.7	24	0	0	17.6	68	154	-42	75	11	1	0	0	3.7	7	17.0	1	13	1	5	13	7.1	48
KAHULUI	15	1013.9	1016.2	26.4	17.4	21.9	-0.1	29.8	26+	12.8	3	0	0	[illegible]	[illegible]	55	-11	36	11	[illegible]	[illegible]	[illegible]	3.1	7	16.5	1	15	4	10	16	5.8	61
LIHUE	31	1014.9	1017.3	25.2	20.1	22.7	0.9	28.7	27	13.9	2	0	0	17.8	74	122	15	8	15	1	0	0	2.1	8	17.0	5	5	2	14	13	7.2	51
IDAHO																																
BOISE	865	916.7	1019.5	5.6	-3.[illegible]	1.6	-0.[illegible]	35.7	27	-16.1	5	0	24	-5.3	67	33	-4	11	8	[illegible]	[illegible]	25	2.9	14	18.8	36	16	4	7	18	7.7	56
LEWISTON	431	[illegible]	[illegible]	7.7	-1.[illegible]	3.3	-0.1	35.6	27	-12.8	5	0	13	[illegible]	[illegible]	13	-4	5	8	[illegible]	T	T	[illegible]	[illegible]	24.[illegible]	[illegible]	16	4	3	24	8.2	[illegible]
POCATELLO	1359	862.9	1019.7	3.9	-6.9	-1.4	0.0	31.1	27+	-17.2	6	0	27	-7.2	62	36	15	11	9	2	345	127	2.0	31	15.6	36	16+	0	7	16	6.9	61
ILLINOIS																																
CAIRO	94	[illegible]	[illegible]	14.1	4.9	9.5	5.2	33.3	27	-8.3	7	0	10	[illegible]	[illegible]	90	-5	61	6	[illegible]	[illegible]	76	[illegible]	[illegible]	[illegible]	21.6	36	21	[illegible]	[illegible]	[illegible]	[illegible]	55
CHICAGO O'HARE	201	989.6	1014.5	0.2	-3.7	-1.8	3.1	31.7	27	-25.0	2	0	16	-3.9	67	47	14	31	8	[illegible]	[illegible]	[illegible]	2.1	24	15.6	18	[illegible]	8	7	16	6.8	[illegible]
CHICAGO MIDWAY	185	992.2	1015.2	0.3	-3.1	-1.[illegible]	4.7	33.9	27	-23.9	2	0	15	-3.9	68	55	15	27	[illegible]	[illegible]	76	203	1.8	24	15.2	36	27+	9	7	13	6.4	55
MOLINE	177	993.2	1015.4	7.8	-4.3	1.8	5.3	34.7	27	-20.0	2	0	23	-5.0	63	28	-5	8	6	2	T	T	1.7	24	16.1	18	21	9	9	11	5.7	64
PEORIA	199	991.2	1016.[illegible]	7.6	-4.[illegible]	1.6	4.6	33.2	27	-20.6	2	0	20	-2.8	74	65	27	29	8	4	74	51	1.7	22	18.3	36	1	6	10	13	6.4	66
ROCKFORD	221	987.5	1015.2	4.9	-6.3	-0.7	3.8	30.0	27	-30.0	2	0	25	-6.1	71	34	1	10	8	3	46	27	1.2	26	13.0	18	21	7	9	13	6.4	
SPRINGFIELD	179	993.6	1016.1	6.1	-1.7	4.2	5.1	33.2	27+	-16.1	2	0	16	-0.6	73	93	48	48	7	3	53	51	1.7	21	13.0	36	16	5	12	12	6.3	62
INDIANA																																
EVANSVILLE	116	1003.4	1017.8	12.2	0.1	6.2	4.8	32.8	29	-13.3	5	0	14	1.7	71	64	-17	46	6	3	[illegible]	25	2.2	22	15.6	36	10	5	5	19	7.1	65
FORT WAYNE	241	984.8	1015.4	7.2	-3.7	1.8	4.2	31.9	29	-20.0	3	0	17	-3.9	69	59	5	23	10	6	155	152	2.8	24	14.8	36	7	2	12	15	7.3	62

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days sunrise to sunset: Clear 0.3	No. of days sunrise to sunset: Partly cloudy 4.7	No. of days sunrise to sunset: Cloudy 8.10	Sky cover tenths sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm														
INDIANA																																
INDIANAPOLIS	241	987.1	1016.6	9.6	-2.7	3.8	4.5	40.6	27	-18.3	2	0	18	-0.6	175	74	14	34	6	4	25	7	2.5	28	15.6	SW	18	4	9	18	7.1	59
SOUTH BEND	234	985.8	1014.5	7.3	-3.8	1.8	5.0	38.6	27	-22.2	3	0	17	-2.2	74	133	84	45	11	4	34	11	2.8	28	13.4	W	17	3	5	18	7.6	
IOWA																																
BURLINGTON	211			8.8	-3.3	2.8	5.4	38.2	27	-17.8	2	0	16	-2.2	74	48	16	21	5	4	28	7	1.1	36	12.1	NW	4	6	11	11	5.7	
DES MOINES	286	980.0	1015.7	6.8	-4.5	1.2	5.5	36.7	27	-14.4	4+	0	22	-5.6	64	69	35	41	8	3	41	11	2.1	17	17.7	NE	17	5	8	14	6.3	64
DUBUQUE	322	974.6		4.0	-6.2	-1.1	4.4	35.6	11	-22.8	2	0	25			66	34	38	8	3	38	6	3.0									
SIOUX CITY	336	975.3	1016.1	6.8	-5.9	0.8	5.6	38.9	26	-18.9	6	0	28	-4.4	74	22	12	14	6	2	26	6	1.2	34	16.5	NE	16	7	11	11	5.6	63
WATERLOO	265	982.7	1015.6	4.9	-7.1	-1.1	5.2	36.7	18	-20.6	2	0	26	-8.3	64	55	31	33	5	3	26	7	1.3	32	13.4	W	7	6	5	19	6.4	
KANSAS																																
CONCORDIA	448	961.7	1015.4	13.4	-2.2	5.7	5.9	23.9	27	-13.9	5	0	18	-5.0	53	8	-16	8	3	3	10	3	1.1	29	25.4	NE	20	12	8	7	5.1	64
DODGE CITY	787	923.5	1015.3	15.9	-1.4	7.2	5.4	28.3	9	-14.4	6	0	18	-6.7	44	15	-21	8	2	1	10	3	1.4	29	28.1	N	13	8	8	9	4.9	75
GOODLAND	1114	886.2	1015.1	13.8	-4.1	4.4	4.7	25.6	9	-13.9	5	0	22	-7.2	49	5	-25	4	2	1	5	2	2.2	28	19.7	NW	12	4	3	14	4.8	
TOPEKA	267	983.4	1019.8	14.1	-2.2	5.9	5.2	34.4	28	-13.3	7	0	17	-2.2	63	13	-12	11	5	3	18	5	1.8	26	19.7	N	11	6	9	14	5.1	72
WICHITA	409	967.2	1015.7	16.3	-1.4	7.9	5.1	28.9	9	-13.3	7+	0	16	-3.9	59	8	-29	4	4	1	13	5	1.1	27	21.5	N	14	5	8	13	4.7	65
KENTUCKY																																
COVINGTON	265	984.8	1016.6	11.8	-1.0	5.4	4.7	31.7	29	-16.7	2	0	16	-1.1	64	80	-17	34	8	4	31	7	2.9	23	13.	SW	15	4	8	11	7.1	
LEXINGTON	294	982.4	1018.3	12.7	0.5	6.6	4.8	32.8	29	-15.0	2	0	15	0.0	65	119	32	96	8	4	40	9	2.8	24	12.1	W	17	5	8	18	7.0	
LOUISVILLE	145	999.7	1017.5	13.4	1.4	7.4	5.3	33.9	29	-13.9	2	0	13	1.1	65	80	-9	56	7	3	31	9	2.5	25	13.4	S	11	5	9	17	6.8	57
LOUISIANA																																
ALEXANDRIA	68	1016.3	1020.5	22.2	7.3	14.8	4.5	37.2	19	-2.8	8	0	4	8.9	73	48	-72	20	5	5	15	3	1.7	28	17.3	NE	18+	13	5	13	5.9	
BATON ROUGE	20	1018.6	1021.4	22.1	7.9	15.1	2.9	37.2	17	0.0	8+	0	2	9.4	76	119	-42	92	5	3	15	4	1.4	28	12.5	NE	11	13	7	11	4.7	
LAKE CHARLES	3	1019.5	1022.8	21.6	9.3	15.5	2.7	36.1	19	0.6	23	0	0	11.1	79	90	-75	24	5	3	11	4	2.1	19	11.3	E	4+	13	5	13	5.7	
NEW ORLEANS	1	1020.3	1021.2	21.4	7.7	14.6	1.4	35.6	17+	-1.1	2	0	3	11.7	81	98	-25	48	3	3	11	3	1.4	19	11.3	NW	24	14	4	13	4.1	64
SHREVEPORT	77	1010.2	1019.3	22.8	7.4	15.1	4.8	37.2	19	-2.2	8+	0	5	7.2	69	62	-32	34	7	4	21	5	2.0	21	14.2	NW	20	11	5	15	5.6	67
MAINE																																
CARIBOU	190	986.5		-3.6	-17.1	-10.3	0.3	9.4	3	-29.4	7	0	29			87	34	28	18		74	203						5	7	19	7.4	
PORTLAND	13	1010.5	1012.8	3.4	-7.7	-2.1	2.9	13.9	27	-16.7	7	0	27	-7.8	68	77	-17	41	11	5	114	28	2.1	28	16.1	E	2	8	6	15	6.4	55
MARYLAND																																
BALTIMORE	45	1011.5	1017.3	13.2	6.3	6.7	5.2	34.4	29+	-12.2	2	0	15	-2.2	67	55	-17	21	9	4	46	13	2.3	27	18.8	N	2	8	7	15	6.1	64
MASSACHUSETTS																																
BLUE HILL OBS R	192			6.7	-4.4	1.1	3.6	19.4	25	-14.4	7+	0	24			79	-23	31	10		91	51			27.1	S	2					57
BOSTON	5	1012.9	1014.3	7.8	-2.0	2.9	3.8	17.2	28+	-11.1	2	0	18	-5.6	69	62	-29	21	10	4	46	20	3.5	26	24.1	N	2	4	8	15	5.3	60
WORCESTER	301	976.3		4.9	-5.9	-0.4	3.4	17.8	25	-16.1	2	0	25			65	-15	27	11	3	74	43	2.4	27	19.1	W	2	8	6	15	6.4	
MICHIGAN																																
ALPENA	210	984.5	1012.5	1.0	-10.4	-4.7	2.9	14.4	25	-28.3	2	0	29	-6.7	80	57	23	16	10	4	41	557	1.9	26	13.0	NW	1	6	9	16	7.7	44
DETROIT	189			6.2	-2.8	1.7	4.6	18.9	25	-19.4	2	0	15	-4.4	69								2.8	26	13.4		15					
DETROIT METRO	193	989.8	1014.4	6.7	-5.3	0.7	3.7	18.3	26	-24.4	2	0	18	-5.6	64	73	28	25	11	4	104	178	2.3	26	17.4	W	17	5	11	14	7.4	47
FLINT	235	984.8	1013.4	4.1	-5.0	-0.5	4.1	16.1	25	-25.6	2	0	20	-5.0	72	58	18	31	9	3	134	38	2.4	26	13.4	W	16	5	9	16	7.7	
GRAND RAPIDS	239	984.1	1013.9	4.8	-6.0	-0.6	3.6	19.4	27	-21.7	2	0	22	-5.0	71	54	16	24	7	3	105	46	2.3	26	17.4	W	15	4	11	15	7.4	50
HOUGHTON LAKE	350	969.5	1012.9	1.1	-9.9	-4.4	3.3	11.7	24	-32.8	2	0	29	-7.2	77	69	33	31	15	5	148	254	1.9	27	13.0	W	8	6	5	19	6.4	
LANSING	256	981.4	1013.8	4.4	-6.8	-1.2	3.3	17.2	28	-27.2	2	0	23	-3.9	79	65	23	35	10	4	77	99	2.7	28	15.4	W	16	5	7	18	7.4	51
MARQUETTE	204			1.8	-7.3	-3.3	3.6	16.7	24	-19.4	1	0	28			54	18	16	18		170	101			16.1		6	4	5	15	6.1	49
MUSKEGON	191	990.2	1013.7	4.3	-4.1	0.2	4.3	16.7	27	-14.4	1	0	20	-3.9	74	71	27	34	16	4	109	457	2.1	26	16.1	W	14	4	5	17	7.1	
SAULT STE MARIE	220	984.4	1012.1	-1.6	-13.1	-7.3	2.0	5.6	24+	-31.7	2	0	29	-9.4	84	60	22	20	21	6	165	818	1.8	32	13.4	NW	19	1	3	27	6.1	47
MINNESOTA																																
DULUTH	435	960.0	1013.5	-1.6	-11.7	-6.3	4.8	12.8	24	-30.6	2	0	29	-11.7	66	27	5	14	12	4	214	483	2.3	27	15.2	NW	7	6	7	14	6.7	52
INTERNATIONAL FALLS	359	968.5	1013.4	-3.3	-16.2	-9.7	4.2	11.1	24	-38.9	2	0	29	-13.3	74	12	-6	4	12	4	240	598	1.6	26	18.1	W	30	3	8	20	6.9	
MINNEAPOLIS	256	983.7	1015.2	2.6	-7.3	-2.3	6.3	14.4	25	-23.9	4	0	26	-7.8	69	15	-6	7	6	3	135	254	1.3	29	15.4		7	5	5	15	6.1	60
ROCHESTER	395	965.5	1014.8	3.2	-7.4	-2.1	6.3	13.9	27+	-25.3	2	0	26	-6.7	73	12	-4	6	6	2	41	18	2.3	29	13.9	W	16	3	4	19	7.2	
ST CLOUD	313	977.0	1015.6	1.3	-11.3	-5.5	4.9	10.6	25	-30.6	2	0	29			21	1	13	6		187	584						8	7	16	6.4	
MISSISSIPPI																																
JACKSON	94	1008.5	1020.5	21.5	5.9	13.7	3.8	36.7	17+	-3.9	8+	0	7	8.3	74	34	-81	18	3	2	0	0	1.3	29	13.4	SW	16+	11	8	11	5.2	55

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation ground	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No of days: Max 32.2 °C or above	No of days: Min 0 C or lower	Average dew point	Average relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	No. of days: 25 mm or more	No. of days: With thunderstorms	Snow, ice pellets: Total	Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days sunrise to sunset: Clear 0.3	No. of days sunrise to sunset: Partly cloudy 4.7	No. of days sunrise to sunset: Cloudy 8.10	Sky cover, tenths, sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
MISSISSIPPI																																
MERIDIAN	88	1009.8	1021.1	20.7	3.5	12.1	2.2	36.1	17	-6.7	8	0	9	6.7	78	44	-80	28	5	3	0	0	1.5	19	11.3	11	10+	11	5	15	5.9	
MISSOURI																																
COLUMBIA REGIONAL	270	983.4	1016.4	17.4	-0.7	5.4	5.0	33.9	27	-16.7	3	0	14	-1.1	65	60	16	36	6	4	155	127	1.5	22	17.9	SW	10	7	8	14	6.3	67
KANSAS CITY	309	977.7	1015.1	17.8	-0.9	5.4	5.3	33.3	28	-13.9	3+	0	13	-2.2	61	17	-15	5	0	1	132	51	0.8	23	17.1	NW	21	9	11	10	5.3	66
ST JOSEPH	247			17.4	-2.5	4.4	4.7	34.4	27	-17.8	3+	0	15			22	-5	8	5		178	127										
ST LOUIS	183	995.9	1016.7	16.9	-0.2	8.4	4.7	36.1	10	-16.1	6	0	13	0.6	68	27	-25	11	5	4	114	102	1.8	23	16.1	SE	21	0	11	16	6.3	57
SPRINGFIELD	386	97.5	1016.5	15.2	-.7	7.9	5.2	35.0	27	-12.2	7	0	12	0.0	62	29	-27	23	3	3	T	T	2.1	20	12.5	SW	24	6	8	15	6.7	53
MONTANA																																
BILLINGS	1087	888.3	1015.2	6.6	-5.1	0.5	3.1	16.1	23	-21.7	5	0	27	-10.0	5	28	12	1	10	2	282	102	4.3	25	21.9	NW	18	4	6	19	7.7	50
GLASGOW	694	929.9	1013.6	4.1	-6.4	-1.4	7.9	35.6	23	-18.9	5	0	28	-7.2	67	3	-5	2	4	0	13	T	0.7	32	15.6	W	27	3	9	17	7.4	
GREAT FALLS	1116	884.5	1015.1	4.8	-5.6	-0.8	2.2	15.6	23	-25.0	5	0	25	-10.6	54	13	-6	6	6	0	142	51	4.2	23	21.1	SW	9	2	4	23	8.0	47
HAVRE	768	919.1	1013.1	6.2	-5.0	0.6	3.6	37.2	23	-20.0	29	0	22	-8.9	53	7	-9	4	3	0	18	25	4.9	25	17.9	W	25	5	8	18	6.9	60
HELENA	1167	878.4	1017.2	4.6	-7.3	-1.4	2.3	14.4	23+	-22.2	5	0	28	-10.6	54	10	0	5	6	0	114	25	2.2	27	17.9	W	18	2	5	23	8.0	46
KALISPELL	904	909.6	1016.8	5.6	-5.9	-1.1	2.2	8.9	8	-20.6	5	0	23	-8.3	64	34	11	15	10	0	259	76	1.6	19	14.3	S	3	2	7	22	8.1	
MILES CITY	801	919.1	1014.6	5.7	-5.3	0.2	3.1	34.4	26	-20.0	6	0	25	-5.0	70	5	-8		8	0	.3		2.1	28								
MISSOULA	972	903.5	1017.9	4.3	-4.6	-0.2	2.5	13.3	23	-16.7	5	0	24	-5.6	70	26	8	13	7	0	251	152	0.3	17	14.3	NW	17	2	3	24	8.2	46
NEBRASKA																																
GRAND ISLAND	561	948.2	1015.8	9.8	-3.8	3.0	5.4	22.8	27	-14.4	6+	0	23	-5.0	61	19	-1	12	4	1	36	25	1.7	31	18.2	N	21	10	7	14	5.4	
LINCOLN	359	972.2	1015.7	11.2	-4.9	3.7	4.9	23.3	27	-14.4	0	0	27	-3.9	66	29	6	13	6	3	109	76	1.5	34	21.0	NE	21	9	7	13	5.8	65
NORFOLK	471			8.7	-4.8	1.0	5.5	18.3	24	-20.0	0	0	24			18	-2	10	8		119	76						8	8	13	6.2	
NORTH PLATT	848	916.4	1016.7	8.9	-8.1	0.4	2.6	19.4	27	-17.8	6+	0	29	-7.8	62	4	-10	2	4	0	41	25	1.7	33	20.1	NW	20	8	9	12	5.9	63
OMAHA	299	979.3	1015.5	9.9	-3.8	3.1	5.3	23.9	27	-13.9	6	0	22	-3.9	65	35	10	11	6	3	180	102	1.0	35	18.3	W	21	9	8	13	6.0	62
SCOTTSBLUFF	1204	877.4	1015.8	10.1	-4.3	2.9	4.3	18.9	26	-20.6	6	0	23	-7.8	52	7	-1	5	6	0	140	76	3.0	30	15.6	SE	18	6	9	14	6.5	
VALENTINE	789			8.0	-6.3	0.8	5.0	18.3	26	-27.2	6	0	26			8	-5	6	3		132	76			18.8	SW	28	10	7	12	5.8	66
NEVADA																																
ELKO	1539	844.6	1018.7	6.4	-5.5	0.4	2.0	25.0	27+	-16.7	10	0	27	-6.1	65	17	-2	10	9	0	132	25	2.4	26	12.5	SE	19	5	7	17	7.0	
ELY	1906	808.0	1018.4	7.2	-8.6	-0.7	1.6	15.6	1	-16.7	6	0	28	-6.7	68	38	23	10	11	1	508	279	1.7	21	15.6	NW	19	7	7	15	6.4	74
LAS VEGAS	659	940.7	1017.7	17.8	5.7	11.8	2.3	23.9	29	0.6	22	0	0	-2.2	43	63	56	30	4	0	0	0	1.9	24	26.8	NW	19	10	11	8	5.2	80
RENO	1342	866.2	1018.5	8.7	-5.4	1.7	-1.2	18.3	3	-13.3	11	0	26	-5.6	64	30	9	12	8	1	401	127	1.0	20	22.4	S	26	6	4	19	7.0	53
WINNEMUCCA	1311	868.6	1017.5	11.8	-3.1	4.4	3.2	19.4	26	-11.7	6	0	18	-6.7	49	13	-8	6	7	0	38	T	1.1	22	16.5	SW	26	5	8	16	6.8	59
NEW HAMPSHIRE																																
CONCORD	104	1000.3	1013.4	2.8	-10.9	-4.1	1.2	12.8	25	-22.8	7	0	29	-8.9	70	60	-2	27	9	0	213	254	1.8	27	15.2	NW	28	5	7	17	6.8	47
MT WASHINGTON OBS	1909			-7.3	-18.9	-13.1	1.9	3.2	27	-32.8	2	0	29			325	160	9	23	0	1656	508			69.0+	W	2	3	4	23	8.4	47
NEW JERSEY																																
ATLANTIC CITY	20	1014.2	1016.6	10.4	-2.2	4.2	3.1	21.1	29+	-15.6	3	0	16	-2.2	65	69	-17	43	9	1	65	25	2.6	25	14.3	SE	2	8	9	12	5.9	66
ATLANTIC CITY 1	8			9.8	1.3	5.6	3.7	22.2	17	-10.6	3+	0	13			76	-6	52	7						20.6	NNW	6					
NEWARK	9	1014.6	1015.7	9.4	-1.3	4.1	3.7	20.0	29+	-12.8	2	0	16	-3.3	63	64	-11	27	11	0	155	102	2.5	27	17.4	SW	2	7	8	14	6.3	
TRENTON U	17			10.4	0.0	5.2	4.4	19.4	29+	-13.3	2	0	14			50	-19	17	9		122	76			21.0	NW	2	9	8	12	5.6	62
NEW MEXICO																																
ALBUQUERQUE	1619	839.1	1017.9	14.9	-2.3	6.3	1.8	21.7	29	-8.9	23	0	22	-6.7	47	10	0	5	4	3	T	0	1.3	26	19.2	NW	17	9	14	6	4.8	77
CLAYTON	1515			14.3	-2.3	6.0	3.7	22.8	12	-11.7	6	0	17			5	-5	4	2		15	25										
ROSWELL	1117	890.6	1015.6	21.0	2.6	11.8	5.8	27.2	29	-6.7	22	0	11	-5.6	37	6	-4	5	3	0	0	0	1.7	22	19.7	NW	20+	11	9	9	5.0	73
NEW YORK																																
ALBANY	84	1004.1	1014.9	5.7	-6.3	-0.3	4.4	19.4	25	-17.8	7	0	24	-6.7	65	66	12	24	11	0	112	51	2.7	24	22.4	NW	2	4	6	19	7.5	52
BINGHAMTON	485	954.3	1014.7	4.0	-5.9	-0.9	4.2	16.7	26	-20.6	2	0	24	-6.7	68	73	16	24	18	1	272	254	3.4	24	15.2	W	17	3	5	21	8.3	36
BUFFALO	215	987.1	1013.6	4.7	-4.9	-0.1	4.1	15.0	25	-21.1	2	0	24	-3.9	76	87	22	36	16	1	211	254	4.7	24	17.4	SW	8	0	6	23	8.9	32
NEW YORK U	40	1012.9	1016.3	9.2	-0.5	4.4	3.6	21.1	25	-12.2	2	0	14			80	5	37	10	0	127	102	1.7	28	11.2	NW	2					67
NEW YORK KENNEDY	4	1015.2	1016.0	8.2	-0.8	3.7	3.6	19.4	27	-12.2	2	0	15	-2.2	68	80	3	41	10	0	185	127	2.9	28	19.7	W	2	8	13	8	5.7	
NEW YORK LA GUARDIA	3	1014.9	1015.9	9.4	0.3	4.8	4.2	20.0	25	-11.1	2	0	12	-3.3	58	75	-4	39	10	0	122	102	3.3	27	21.5	W	2	7	13	9	6.0	
ROCHESTER	167	992.9	1013.8	5.9	-4.5	0.7	4.7	17.8	25	-20.6	2	0	23	-4.4	71	42	-19	13	17	0	224	178	3.8	25	20.6	SW	19	0	8	21	8.7	31
SYRACUSE	125	998.6	1013.9	6.1	-5.5	0.3	4.4	18.3	25	-17.2	2	0	23	-5.6	68	69	-2	27	20	0	323	254	2.6	24	18.8	W	2	1	6	22	8.6	33
NORTH CAROLINA																																
ASHEVILLE	652	942.4	1019.5	15.7	-1.0	7.4	3.3	22.8	17	-9.4	8+	0	18	1.1	71	56	-36	24	6	2	89	51	0.8	33	14.3	36	6	13	8	8	4.8	66

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station O	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
NORTH CAROLINA																																
CAPE HATTERAS R	2	1020.0	1020.2	16.5	5.4	10.9	3.3	22.8	29	-5.6	8	0	8	6.1	71	36	-69	33	3	1	0	0	2.2	25	17.4	26	2	12	7	10	4.7	59
CHARLOTTE	224	991.9	1019.5	17.5	2.7	10.1	3.4	24.4	17+	-6.7	8	0	9	1.1	58	29	-69	14	4	1	T	0	1.8	23	13.9	S	18	13	7	9	4.8	61
GREENSBORO	273	987.1	1019.1	16.5	2.7	9.6	4.8	24.4	17	-6.7	8	0	10	1.1	59	37	-48	14	8	3	8	T	2.3	22	20.1	SW	18	11	8	11	5.2	73
RALEIGH	132	1003.4	1019.4	17.4	2.7	10.1	4.4	25.0	29+	-6.1	8	0	11	0.6	55	39	-45	30	6	1	T	T	2.1	23	12.5	33	1	12	9	8	4.8	71
WILMINGTON	9	1019.3	1020.7	20.2	5.6	12.9	4.0	27.2	17	-3.3	8	0	7	6.1	67	26	-60	10	5	2	0	0	1.8	23	17.0	SW	1	13	8	8	4.8	75
NORTH DAKOTA																																
BISMARCK	502	952.9	1014.5	3.5	-8.8	-2.7	7.6	17.2	23	-21.7	4	0	29	-6.7	76	7	-4	4	5	1	64	102	1.5	29	21.0	NW	2	5	10	14	6.8	55
FARGO	273	981.0	1015.0	-1.2	-10.6	-5.9	5.9	10.6	24	-28.3	4	0	29	-9.4	75	9	-2	7	4	0	157	203	1.3	26	18.3	N	3	5	8	16	7.3	57
WILLISTON	579	943.8	1014.4	1.4	-11.9	-5.2	4.7	11.1	23	-24.4	29+	0	29	-7.8	78	5	-8	2	7	0	51	152	2.0	28	19.7	NW	1	1	9	19	7.9	50
OHIO																																
AKRON	369	970.2	1015.8	8.3	-3.1	2.7	5.1	19.4	29	-20.6	2	0	18	-3.3	66	76	21	22	13	2	249	279	3.0	23	13.0	20	16	4	7	18	7.6	
CINCINNATI ARBF OB	232			11.8	0.6	6.2	4.8	22.8	24	-15.0	2	0	13			63	-12	39	8						11.2	W	19					45
CLEVELAND	237	985.4	1015.4	7.6	-3.2	2.2	4.5	20.0	29+	-19.4	3	0	17	-2.2	74	101	45	54	13	2	173	178	3.1	24	21.9	SW	18	3	4	22	8.1	40
COLUMBUS	247	986.1	1016.9	8.3	-2.3	3.0	3.9	21.1	29	-17.2	2	0	18	-3.3	64	52	-7	24	8	2	46	25	2.5	23	15.6	SW	19	5	4	20	7.4	47
DAYTON	303	979.7	1016.5	9.4	-2.2	3.7	4.6	21.7	29	-17.8	2	0	15	-2.2	66	44	-13	22	8	1	33	51	2.6	23	17.9	SW	21	5	7	17	7.3	52
MANSFIELD	395			6.8	-3.9	1.4	2.8	17.2	29	-21.7	2	0	16			76	25	31	10	2	274	178	3.9	22	17.9	28	16	2	9	18	7.7	
TOLEDO	204	989.2	1015.1	6.4	-5.6	0.4	3.2	18.3	27	-25.6	3	0	19	-4.4	71	113	68	38	11	2	213	203	2.5	24	15.2	W	17	3	10	16	7.0	50
YOUNGSTOWN	359	971.9	1015.5	6.8	-3.9	1.4	4.4	18.9	25	-21.1	2	0	20	-5.0	65	82	21	32	11	4	201	152	3.0	25	12.5	26	17	2	7	20	8.3	
OKLAHOMA																																
OKLAHOMA CITY	392	970.2	1016.8	19.4	2.9	11.2	6..	27.2	27	-11.1	7	0	11	-1.7	47	8	-25	6	2	2	8	T	1.2	22	17.9	N	21	9	5	15	6.1	78
TULSA	198	991.9	1016.3	18.3	2.9	10.6	5.5	27.2	27	-11.1	7	0	10	0.0	54	21	-22	12	3	2	T	T	2.3	21	16.5	SW	25	8	7	14	5.9	63
OREGON																																
ASTORIA	2	1016.3	1016.9	9.6	2.2	5.9	-0.6	15.6	22+	-6.7	5	0	5	2.8	81	200	1	51	19	2	T	T	2.4	19	16.1	24	17	4	5	20	7.5	
BURNS	1265			4.6	-6.4	-0.9	-0.4	21.1	27	-16.7	6	0	27			37	7	10	10		267	102			22.4Y	W	16	8	2	16	6.4	
EUGENE	109	1004.4	1018.3	16.3	0.6	5.5	-0.9	17.8	26	-6.7	6	0	13	1.1	77	195	76	42	15	0	T	0	1.8	19	13.0	24	17	6	4	19	7.4	
MEDFORD	396	970.5	1019.2	11.1	-2.1	4.6	-0.6	19.4	22	-10.6	5	0	18	-1.7	72	56	2	18	12	0	25	T	0.4	29	11.2	14	22	8	5	16	6.5	
PENDLETON	452	962.8	1017.7	7.6	-1.1	3.3	-0.6	17.8	27	-13.9	5	0	14	-2.8	67	25	-2	8	9	0	8	T	2.0	24	16.5	25	16	4	5	21	7.5	
PORTLAND	6	1016.3	1017.6	9.6	1.7	5.6	-0.4	15.6	22	-4.4	7	0	10	3.0	74	125	22	48	16	0	T	0	2.3	18	17.9	SW	24	4	4	22	7.5	46
SALEM	60	1019.2	1017.5	9.2	-0.1	4.0	-1.5	17.8	22	-8.3	6	0	14	0.0	75	176	54	51	18	0	T	0	2.2	19	14.3	24	17	7	6	16	6.6	
SEATON SUMMIT R	1169	882.5	1017.3	5.5	-1.3	2.1	-0.8	16.1	2	-10.6	5+	0	20			67	-36	13	15		292	76	2.7	19	12.1	20	24	7	5	17	6.9	
PACIFIC AREA																																
GUAM TAGUAC R	110			27.8	21.7	24.8	-0.4	28.9	21+	15.6	23	0	0			344	236	59	21		0	0			11.6	E	18	1	6	24	8.3	46
JOHNSTON	2	1012.2	1012.8	28.3	22.7	24.5	-0.2	27.2	23+	20.6	8+	0	0	19.4	74	92	42	45	16	1	0	0	6.3	9	17.0	NE	16	9	15	5	4.9	76
KOROR R	29	1005.4		30.6	23.7	27.2	0.1	31.7	27+	22.2	29	0	0			185	-4	73	16	1	0	0	2.0	6	11.2	N	1	1	5	23	8.7	59
MAKWALEIN	2	1008.1		29.3	24.6	26.9	-0.5	30.6	11	22.8	16+	0	0			230	170	66	20	6	0	0	5.1	7	11.6	12	16	1	0	29	8.3	
MAJURO	3	1008.5		28.9	23.7	26.3	-1.0	30.0	14+	22.8	29+	0	0			239	62	58	14		0	0	3.7	8	14.3	E	17	2	7	20	8.0	54
PAGO PAGO	4	1009.9	1009.9	30.0	23.1	26.6	-0.4	31.7	7	21.7	19+	0	0	22.8	81	339	-20	84	23	5	0	0	2.3	4	16.8	W	13	0	8	21	8.2	31
HOWARD R	37			30.3	23.2	26.8	-0.3	31.7	27+	19.4	7	0	0			324	34	89	19	1	0	0			8.0	NE	16	2	5	23	8.3	58
TRUK MOEN ISLAND	2	1008.5		29.7	24.4	27.1	-0.2	30.6	28+	22.2	27+	0	0			238	75	79	17	0	0	0	4.0	6	11.6	E	14	0	4	26	9.9	51
WAKE	3	1012.9	1013.1	27.3	21.7	24.5	-0.5	28.9	25+	19.4	17	0	0	19.4	74	89	58	52	16	0	0	0	6.1	8	20.1	NE	29	8	12	9	5.4	74
YAP R	13	1007.1		31.0	23.2	26.0	-0.3	31.1	23+	21.1	24+	0	0			81	-56	28	14	0	0	0	3.4	7	10.7	NW	3	2	12	16	7.4	78
PENNSYLVANIA																																
ALLENTOWN	118	1002.0	1016.4	8.4	-3.3	2.6	4.0	20.0	21	-14.4	2	0	19	-4.4	64	71	1	20	10	3	109	76	2.5	27	17.4	34	2	7	9	13	6.3	
ERIE	223	987.8	1015.2	5.8	-5.0	0.4	4.2	17.8	25	-20.0	2	0	25	-3.9	76	127	73	31	13	4	173	102	4.2	23	13.4	05	26*	2	7	20	8.1	
HARRISBURG	103	1004.4	1017.3	10.1	-1.7	4.6	4.1	21.7	25	-13.3	2	0	14			48	-14	28	10	0	54	25	1.8	29	18.3	W	11	8	11	11	5.9	55
PHILADELPHIA	3	1015.6	1016.7	11.9	-1.0	4.9	3.9	21.1	26	-12.8	2	0	10	-2.2	64	42	-24	14	8	1	79	25	2.2	27	19.2	NW	2	8	9	13	6.7	66
PITTSBURGH	367	971.6	1016.3	7.9	-2.1	2.9	4.4	20.0	29	-18.3	2	0	18	-6.7	52	44	-15	10	10	1	84	51	3.2	26	14.3	27	18	2	1	17	7.4	45
SCRANTON	283	980.4	1015.5	6.8	-3.4	1.7	4.3	20.0	29	-15.6	2	0	21	-5.0	63	54	5	16	11	0	141	102	2.1	26	14.5	0	2	3	9	17	7.3	51
WILLIAMSPORT	150	996.3	1015.8	7.7	-3.9	1.9	3.8	20.6	25	-15.6	2	0	21	-5.6	61	48	-17	14	13	1	132	127	1.4	29	13.9	32	2	3	11	16	6.9	
RHODE ISLAND																																
BLOCK ISLAND	34			7.4	-1.1	3.6	3.6	16.7	27	-11.1	2	0	16			63	-21	31	9		11	76										
PROVIDENCE	16	1012.5	1014.7	7.8	-3.9	1.9	3.4	20.6	25	-15.6	2	0	19	-5.0	69	74	-14	30	10	3	44	76	2.8	27	17.4	30	2	4	9	13	6.7	64
SOUTH CAROLINA																																
CHARLESTON	2	1019.6	1021.4	21.8	5.9	13.8	3.0	26.1	29+	-3.3	8	0	6	8.0	62	24	-59	17	2	1	0	0	1.7	22	16.9	24	1	16	6	7	4.1	66

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 2.5 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear 0.3	No. of days (sunrise to sunset): Partly cloudy 4.7	No. of days (sunrise to sunset): Cloudy 8.10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
SOUTH CAROLINA																																
CHARLESTON J	3			19.7	9.7	14.7	3.8	35.6	28	1.7	8	5	0			21	-58	14	3		0	0										
COLUMBIA	65	1012.2	1020.5	21.7	4.4	13.1	4.4	37.8	28	-3.3	9+	0	7	3.3	57	22	-71	15	4	3	0	0	1.7	24	11.2	NW	1	14	8	7	4.7	44
GREENVILLE-SPARTANBG	292	984.4	1019.5	17.7	3.7	10.3	3.4	33.9	28+	-4.4	8	0	10	1.7	67	55	-58	31	4	1	1	0	1.7	23	13.4	E	18	15	4	5	4.2	45
SOUTH DAKOTA																																
ABERDEEN	395	967.2	1015.6	2.6	-8.6	-2.9	6.5	16.7	24	-25.0	6	0	29	-6.7	76	13	-3	4	9	4	216	102	2.9	29	15.6	35	3	4	7	20	7.3	
HURON	390	967.2	1015.6	4.4	-8.5	-2.1	5.8	18.9	23	-25.6	6	0	29	-6.7	75	14	-3	6	7	4	188	102	2.8	31	15.2	NW	3	5	6	20	6.9	62
RAPID CITY	964	902.1	1015.3	8.2	-5.4	1.4	4.9	18.9	28	-24.4	6+	0	24	-8.3	53	12	-3	5	8	0	165	102	2.2	32	23.2	NW	28	5	4	22	6.5	70
SIOUX FALLS	437	962.8	1015.6	3.6	-6.3	-1.4	5.6	34.1	28	-22.8	6	0	28	-6.1	75	12	-14	5	7	4	168	152	1.8	30	18.4	E	21+	7	4	19	6.5	
TENNESSEE																																
BRISTOL	459	964.4	1019.3	15.4	1.4	8.5	4.8	33.3	29	-10.6	2	0	13	0.6	63	78	-16	36	9	2	41	51	1.6	25	12.5	18	28	11	7	14	5.6	
CHATTANOOGA	208	994.9	1020.1	16.9	1.4	9.2	3.2	33.9	28+	-7.2	2	0	14	2.8	69	53	-78	41	6	2	T	T	1.4	24	16.5	25	18	10	4	16	5.5	60
KNOXVILLE	299	984.1	1019.4	16.2	1.8	9.0	3.0	33.3	29+	-8.9	2	0	13	1.7	65	55	-64	34	8	2	71	76	2.2	24	13.0	12	21+	10	6	15	5.7	64
MEMPHIS	79	1008.9	1019.3	18.2	6.2	12.1	5.6	35.6	29	-5.6	7	0	7	3.9	59	112	-8	39	6	5	T	0	2.6	21	13.6	36	1	7	7	16	6.4	69
NASHVILLE	180	997.0	1019.1	16.9	3.6	10.3	5.3	34.4	29	-9.4	2	0	11	3.3	65	58	-55	34	7	2	58	51	2.4	22	13.0	19	21+	8	8	15	6.2	61
OAK RIDGE A	276			15.7	-0.6	7.6	2.9	33.3	29	-10.0	2	0	19			66	-67	39	9		99	102			20.6Y		18	9	8	12	5.7	
TEXAS																																
ABILENE	544	954.3	1017.3	21.6	5.1	13.3	4.5	30.6	9	-6.7	22	0	5	-0.6	46	2	-23	2	1	1	0	T	2.5	21	19.2	N	28	11	10	8	5.2	79
AMARILLO	1098	891.0	1015.4	17.4	0.1	8.8	4.5	27.8	9	-10.0	6	0	14	-8.9	35	3	-12	3	1	0	T	T	2.9	27	20.6	35	21	9	8	14	5.8	70
AUSTIN	182	997.0	1018.9	23.0	9.6	16.3	4.4	38.3	19+	-1.1	7	0	1	5.7	64	28	-50	21	5	3	0	0	1.9	20	14.8	NW	21	10	7	12	5.4	58
BROWNSVILLE	6	1018.6	1019.3	29.2	12.8	18.7	1.2	38.3	27+	1.4	23	0	0	12.2	70	1	-37	1	2	0	0	0	3.6	16	17.0	S	17	14	7	8	4.5	68
CORPUS CHRISTI	12	1017.6	1019.3	25.1	10.8	18.0	2.7	31.1	17	-2.8	23	0	1	11.1	70	T	-50	T	0	0	0	0	3.7	15	15.2	SE	29	10	9	10	5.1	66
DALLAS - FORT WORTH	168	996.6	1018.1	21.8	7.5	14.7	5.4	38.9	9	-4.4	7	0	3	3.3	51	13	-47	7	2	2	0	0	2.7	21	13.4	35	21	8	10	11	5.9	
DEL RIO	313	981.4	1017.5	25.6	8.8	17.2	4.1	32.2	20	-0.6	23	1	1	2.8	49	T	-26	T	1	0	0	0	1.7	16	12.5	32	21	10	12	7	4.9	
EL PASO	1194	883.8	1016.8	20.3	2.6	11.4	2.3	36.7	28	-6.7	23+	0	6	-5.6	37	13	3	3	3	0	0	0	1.3	24	18.8	29	20	16	6	7	4.1	87
GALVESTON	2			18.5	13.2	15.8	2.4	32.8	18	2.8	7	0	0			8	-60	8	2		0	0			14.3	N	22					64
HOUSTON INTERCON	29	1016.6	1020.2	23.1	8.2	15.6	2.7	28.9	19	-2.8	23	0	6	8.9	71	10	-80	8	4	1	0	0	1.8	18	11.2	31	21	9	9	11	5.4	59
LUBBOCK	992	904.5	1016.2	20.2	1.1	10.7	4.7	28.3	28+	-7.8	22	0	15	-6.1	38	1	-12	1	1	0	T	T	2.5	25	20.1	24	20	9	12	8	5.2	77
MIDLAND	869	917.7	1016.3	22.6	4.3	13.4	4.7	30.0	9	-3.3	22	0	5	-3.3	42	5	-10	5	1	0	T	T	2.1	23	17.9	27	20	13	10	6	4.2	
PORT ARTHUR	5	1020.0		21.8	9.1	15.5	2.7	25.6	19	-0.6	23	0	2	11.1	81	11	-97	8	5	2	0	0	2.6	19	11.6	N	22+	13	4	12	5.0	71
SAN ANGELO	580	950.6	1017.7	22.2	5.2	13.7	3.5	28.9	9	-3.3	22+	0	5	0.0	47	11	-9	1	1	1	0	0	2.4	23	13.0	31	20+	10	12	7	4.7	
SAN ANTONIO	240	990.9	1018.9	23.9	8.6	16.2	3.7	28.9	17	-1.7	23	0	4	6.7	59	3	-49	3	3	2	0	0	1.6	17	13.9	NW	21	11	10	8	4.9	69
VICTORIA	32	1015.6	1019.8	23.7	10.2	16.9	3.2	26.7	29+	1.1	23+	0	0	10.6	72	10	-48	5	3	1	0	0	2.0	16	16.5Y	N	21	10	8	11	5.7	
WACO	153	1000.3	1018.6	22.6	7.4	15.0	4.5	27.8	19	-3.3	7	0	5	6.1	62	8	-52	5	2	2	0	0	2.7	18	13.4	30	21	10	6	13	5.8	
WICHITA FALLS	303	980.4	1017.2	21.9	3.9	12.9	5.2	31.7	20+	-7.2	7	0	8	0.6	51	3	-27	2	2	1	T	T	2.1	23	17.0	29	20	6	9	14	6.2	
UTAH																																
MILFORD	1933	845.6	1020.0	9.0	-6.3	1.3	1.7	19.4	28	-16.1	6	0	27			42	25	12	10		404	203			20.6	SW	29	8	9	12	5.8	67
SALT LAKE CITY	1286	872.7	1019.6	6.8	-4.5	1.2	0.4	16.1	27+	-15.6	6	0	23	-4.4	71	48	18	15	11	1	401	178	1.0	19	18.8	N	19	5	8	16	7.0	60
WENDOVER	1291	872.0	1020.1	6.0	-4.7	0.7	-0.6	17.8	26	-12.8	7	0	25	-6.7	63	18	10	8	7		79	76	0.6	31								
VERMONT																																
BURLINGTON	101	1000.3	1013.8	1.6	-9.8	-4.1	3.3	12.2	26	-19.4	7	0	28	-8.3	70	72	30	27	15	0	518	279	1.3	19	16.1	S	13	3	5	21	8.1	37
VIRGINIA																																
LYNCHBURG	279	983.7		14.3	1.0	7.7	4.3	33.9	29	-11.1	2	0	12			50	-21	25	7		30	25			13.4	SW	2	13	3	13	5.2	58
NORFOLK	7	1017.6	1018.8	16.8	3.0	9.9	4.7	27.2	18	-6.1	2	0	12	1.1	59	38	-46	27	4	0	T	0	2.4	25	14.8	31	22	13	6	10	4.9	72
RICHMOND	50	1011.5	1018.2	17.1	1.2	9.2	5..	27.2	17	-8.3	2	0	14	0.0	56	34	-42	25	5	0	T	T	2.0	24	13.4	SW	18	12	4	13	5.3	71
ROANOKE	350	975.6	1018.1	15.2	1.1	8.2	4.8	25.0	29	-12.8	2	0	11	-1.7	53	32	-46	11	7	1	T	T	2.5	28	15.6	31	2	11	4	14	5.7	
WALLOPS ISLAND	3			12.1	2.1	7.1	4.1	26.1	17	-6..	2	0	13			40	-49	27	5		8	T			28.6Y	WNW	2					
WASHINGTON																																
OLYMPIA	59	1008.1	1015.6	8.3	-0.2	4.1	-0.9	15.0	22	-10.6	5	0	14	0.0	80	184	33	29	22	1	183	51	2.9	20	14.3	27	17	3	4	22	8.0	
QUILLAYUTE	55	1006.8	1014.2	8.0	0.9	4.4	-0.8	12.8	21	-6.7	6	0	11	1.7	84	379	75	99	22	0	338	76	1.6	19	12.5	SW	25+	4	0	25	8.4	22
SEATTLE U	6			9.1	3.0	6.1	-0.3	15.6	21	-3.9	5	0	3			123	23	23	19		0	0			21.5Y	SW	17					
SEATTLE-TACOMA	122	999.0	1015.7	8.2	1.7	4.9	-0.8	13.9	21	-4.4	6	0	6	0.0	74	120	14	20	18	1	13	T	2.9	18	17.0	S	25	3	3	23	8.0	51
SPOKANE	718	930.2	1015.9	3.4	-3.3	0.1	-0.1	8.3	22+	-15.0	5	0	24	-5.0	73	52	9	20	11	0	160	51	3.3	21	18.8	SW	18	4	2	23	7.9	30
STAMPEDE PASS R	1206	875.4		-0.2	-5.1	-2.6	-0.3	12.8	1	-11.1	6+	0	29			299	38	51	21		226	2819						4	4	21	8.0	
WALLA WALLA J	289			8.8	1.0	4.9	0.3	16.7	27+	-10.0	5	0	10			43	8	13	12		13	T			16.5	SW	16	5	6	18	7.6	36
YAKIMA	321	978.0	1017.4	7.9	-4.5	1.7	-0.3	15.6	12	-12.2	6+	0	28	-5.0	67	20	0	10	4	0	132	102	1.9	25	14.8	24	27	6	8	15	6.6	

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No of days (sunrise to sunset): Clear, 0-3	No of days (sunrise to sunset): Partly cloudy, 4-7	No of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
WEST INDIES																																
SAN JUAN P.R.	4	1015.9	1018.4	27.8	21.7	24.8	0.7	28.9	24+	18.9	7	0	0	17.8	67	55	-8	11	20	6	0	0	3.9	8	14.3	E	18	6	14	4	5.4	66
WEST VIRGINIA																																
BECKLEY	763	928.5	1018.6	11.4	-6.1	5.7	5.3	21.1	29	-18.3	2	0	13	-1.7	63	75	-9	17	13	1	185	76	3.5	23	13.4	16	21+	5	9	16	7.2	
CHARLESTON	288	983.4	1018.0	14.6	0.7	7.7	5.2	25.6	29	-15.0	2	0	16	-1.7	56	54	-25	16	12	1	66	25	2.4	24	13.4	24	19	5	9	16	7.0	
ELKINS	594	945.1		11.2	-3.5	3.9	4.2	20.6	29	-20.6	3+	0	22			77	3	25	14		206	76						7	8	16	7.1	
HUNTINGTON	252	987.1	1017.7	13.9	2.0	8.0	5.7	25.0	29	-13.3	2	0	14	-1.1	57	60	-13	28	9	1	30	T	2.2	24	15.6	27	17	4	8	19	7.4	
PARKERSBURG U	187			12.5	0.5	6.5	5.0	23.9	29	-15.6	2	0	14			55	-15	14	9		98	25			19.2	SW	19					58
WISCONSIN																																
GREEN BAY	208	987.8	1014.1	1.3	-8.2	-3.4	4.3	7.2	26	-24.4	2	0	28	-8.5	68	34	8	14	4	1	31.5	356	1.8	27	15.6	SW	23	5	6	20	7.3	45
LA CROSSE	198	990.9	1016.1	3.8	-7.1	-1.7	5.0	16.1	26	-27.2	2	0	27	-6.7	73	16	-6	9	0	1	69		0.9	27								
MADISON	262	982.1	1014.5	3.8	-7.8	-2.0	4.5	15.6	15	-28.9	2	0	24	-6.1	73	44	20	18	5	3	244	178	1.5	27	15.2	SW	1	6	7	16	6.6	52
MILWAUKEE	205	988.5	1014.4	4.1	-5.1	-0.5	4.8	18.9	27	-21.1	2	0	21	-5.6	68	67	39	33	9	4	143	254	2.7	27	16.5	W	22	6	6	17	6.7	57
WYOMING																																
CASPER	1627	834.7	1016.5	4.1	-6.1	-1.0	1.9	12.2	28+	-25.6	5	0	26	-8.9	59	23	10	8	10	3	409	127	5.4	23	17.3	SW	10	3	13	15	6.8	
CHEYENNE	1867	808.3	1014.7	6.4	-5.4	0.5	2.2	15.0	9	-21.1	5	0	26	-11.7	45	18	6	11	4	0	216	102	4.9	28	20.6	W	18	0	9	12	6.3	56
LANDER	1696	826.6	1017.5	3.8	-6.3	-2.7	0.9	11.1	26	-29.4	6	0	27	-11.1	56	21	4	11	6	0	414	279	0.9	25	20.1	SW	28	7	10	13	5.9	73
SHERIDAN	1208	875.4	1015.5	7.2	-7.2	0.0	3.4	17.8	22	-28.9	6	0	29	-8.9	56	17	-3	9	9	2	378	178	1.7	28	19.2	SW	8	2	8	19	7.7	69

HEATING DEGREE DAYS

(Base 65°F.)

FEBRUARY 1976

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	314	2238	2335
HUNTSVILLE	415	2564	2683
MOBILE	174	1282	1433
MONTGOMERY	291	1874	1899
ALASKA			
ANCHORAGE	1511	8011	7890
ANNETTE	888	4851	4784
BARROW	2554	15014	13503
BARTER ISLAND	2504	14741	13372
BETHEL	2102	10071	9208
BETTLES	2474	12494	11499
BIG DELTA	2161	11238	10217
COLD BAY	1184	6750	6450
FAIRBANKS	2285	11508	10844
GULKANA	2034	10566	10394
HOMER	1271	7400	7151
JUNEAU	1131	6327	6315
KING SALMON	1673	8767	8118
KODIAK	1087	6623	5896
KOTZEBUE	2403	11889	10812
MC GRATH	2377	12031	10722
NOME	2297	10922	9495
ST. PAUL ISLAND	1622	7863	7133
SUMMIT	1975	10752	10178
TALKEETNA	1879	9077	8454
UNALAKLEET			
VALDEZ	1315	7287	7449
YAKUTAT	1193	6726	6496
ARIZONA			
FLAGSTAFF	862	4705	5042
PHOENIX	123	903	1315
TUCSON	180	1152	1438
WINSLOW	648	3703	3644
YUMA	116	762	869
ARKANSAS			
FORT SMITH	413	2650	2735
LITTLE ROCK	359	2409	2744
CALIFORNIA			
BAKERSFIELD	272	1633	1768
BISHOP	711	3151	3246
BLUE CANYON	811	3536	3440
EUREKA U	516	3261	3037
FRESNO	440	2333	2077
LONG BEACH	161	750	1126
LOS ANGELES	202	780	1141
LOS ANGELES U	240	846	853
MT SHASTA P	813	4089	4043
OAKLAND	404	2215	1994
RED BLUFF	452	2128	2045
SACRAMENTO	374	1838	2118
SANDBERG R			
SAN DIEGO	150	752	1021
SAN FRANCISCO	415	2268	2062
SAN FRANCISCO U	344	2021	2017
SANTA MARIA	354	1978	1973
STOCKTON	408	2204	2143
COLORADO			
ALAMOSA	1014	6377	6269
COLORADO SPRINGS	782	4226	4617
DENVER	740	3991	4321
GRAND JUNCTION	775	4522	4338
PUEBLO	714	3871	4066
CONNECTICUT			
BRIDGEPORT	826	3589	3906
HARTFORD	869	4324	4705
DELAWARE			
WILMINGTON	681	3369	3735
DIST. OF COLUMBIA			
WASHINGTON DULLES	688	3679	3827
WASHINGTON NATIONAL	524	2682	3282
FLORIDA			
APPALACHICOLA	233	1248	1165
DAYTONA BEACH	143	891	764
FORT MYERS	78	396	412
JACKSONVILLE	210	1268	1138
KEY WEST	4	57	59
LAKELAND U	92	618	475
MIAMI	27	202	191
ORLANDO	104	641	631
PENSACOLA	179	1190	1340
TALLAHASSEE	234	1452	1351
TAMPA	109	648	624
WEST PALM BEACH	56	302	276
GEORGIA			
ATHENS	358	2195	2419
ATLANTA	384	2346	2499
AUGUSTA	320	1896	2114
COLUMBUS	301	1872	1974
MACON	290	1832	1883
ROME	445	2528	2711
SAVANNAH	256	1541	1643

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
IDAHO			
BOISE	886	4193	4290
LEWISTON	774	3718	4046
POCATELLO	1026	4882	5113
ILLINOIS			
CAIRO U	457	2735	3093
CHICAGO O HARE	859	4266	4853
CHICAGO MIDWAY	840	4226	4600
MOLINE	855	4402	4883
PEORIA	868	4428	4660
ROCKFORD	986	4948	5152
SPRINGFIELD	732	3901	4288
INDIANA			
EVANSVILLE	626	3371	3639
FORT WAYNE	856	4307	4649
INDIANAPOLIS	754	3995	4267
SOUTH BEND	856	4178	4790
IOWA			
BURLINGTON	805	4270	4708
DES MOINES	890	4324	5106
DUBUQUE	1009	5095	5478
SIOUX CITY	907	4868	5309
WATERLOO	1005	5189	5620
KANSAS			
CONCORDIA	657	3784	4298
DODGE CITY	574	3388	3856
GOODLAND	724	3877	4501
TOPEKA	639	3678	4067
WICHITA	562	3364	3670
KENTUCKY			
COVINGTON	670	3551	3889
LEXINGTON	606	3496	3667
LOUISVILLE	562	3112	3614
LOUISIANA			
ALEXANDRIA	202	1613	1845
BATON ROUGE	189	1418	1439
LAKE CHARLES	167	1270	1281
NEW ORLEANS	205	1311	1257
SHREVEPORT	186	1558	1819
MAINE			
CARIBOU	1489	7094	6904
PORTLAND	1041	5276	5352
MARYLAND			
BALTIMORE	603	3109	3619
MASSACHUSETTS			
BLUE HILL OBS R	895	4302	4560
BOSTON	801	3651	4082
WORCHESTER	972	4816	4955
MICHIGAN			
ALPENA	1197	5746	6007
DETROIT	864	4074	4574
DETROIT METRO	914	4528	4734
FLINT	978	4658	5131
GRAND RAPIDS	980	4808	4981
HOUGHTON LAKE	1180	5664	6002
LANSING	1011	4910	5064
MARQUETTE U	1120	5563	5846
MUSKEGON	942	4482	4954
SAULT STE MARIE	1333	6328	6469
MINNESOTA			
DULUTH	1279	6945	7048
INTERNATIONAL FALLS	1483	7581	7790
MINNEAPOLIS	1074	5528	6132
ROCHESTER	1059	5485	6133
ST CLOUD	1238	6446	6631
MISSISSIPPI			
JACKSON	252	1819	1921
MERIDIAN	323	2077	2004
MISSOURI			
COLUMBIA REGIONAL	644	3614	3935
KANSAS CITY	640	3694	4109
ST JOSEPH	716	3782	4234
ST LOUIS	619	3504	3710
SPRINGFIELD	533	3257	3557
MONTANA			
BILLINGS	926	4915	5221
GLASGOW	1022	6030	6620
GREAT FALLS	994	5168	5442
HAVRE	915	5429	6429
HELENA	1023	5624	5897
KALISPELL	1037	5606	6146
MILES CITY	941	5479	5854
MISSOULA	959	5390	5752

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
NEBRASKA			
GRAND ISLAND	791	4552	4859
LINCOLN	810	4340	4761
NORFORK	900	4902	5281
NORTH PLATTE	929	5286	5001
OMAHA	791	4148	4659
SCOTTSBLUFF	799	4564	4921
VALENTINE	907	5153	5368
NEVADA			
ELKO	927	5035	5345
ELY	985	5218	5429
LAS VEGAS	339	1835	2155
RENO	863	4323	4263
WINNEMUCCA	718	4077	4704
NEW HAMPSHIRE			
CONCORD	1162	5791	5388
MT WASHINGTON OBS	1638	9222	9460
NEW JERSEY			
ATLANTIC CITY	733	3631	3695
ATLANTIC CITY U	664	3131	3359
NEWARK	738	3483	3766
TRENTON	678	3314	3719
NEW MEXICO			
ALBUQUERQUE	622	3473	3380
CLAYTON	637	3532	3831
ROSWELL	334	2365	3025
NEW YORK			
ALBANY	964	4803	5111
BINGHAMTON	999	4986	5276
BUFFALO	958	4610	4963
NEW YORK U	723	3429	3612
NEW YORK KENNEDY	756	3371	3767
NEW YORK LA GUARDIA	695	3290	3638
ROCHESTER	914	4567	4867
SYRACUSE	936	4706	4857
NORTH CAROLINA			
ASHEVILLE	566	3151	3275
CAPE HATTERAS R	379	1768	2056
CHARLOTTE	425	2371	2597
GREENSBORO	454	2657	3041
RALEIGH	426	2459	2805
WILMINGTON	294	1624	1990
NORTH DAKOTA			
BISMARCK	1087	6043	6733
FARGO	1257	6405	6943
WILLISTON	1226	6507	6801
OHIO			
AKRON	811	4124	4606
CINCINNATI ABBE OB	626	3398	3748
CLEVELAND	836	4240	4608
COLUMBUS	791	3978	4327
DAYTON U	760	3862	4275
MANSFIELD	870	4422	4342
TOLEDO	927	4661	4752
YOUNGSTOWN	873	4480	4722
OKLAHOMA			
OKLAHOMA CITY	367	2501	2968
TULSA	402	2651	2969
OREGON			
ASTORIA	640	3364	3512
BURNS U	998	5004	5117
EUGENE	664	3020	3304
MEDFORD	712	3480	3538
PENDLETON	782	3384	3893
PORTLAND	658	3074	3391
SALEM	709	3393	3375
SEXTON SUMMIT R	840	4193	4175
PENNSYLVANIA			
ALLENTOWN	820	3945	4362
ERIE	931	4490	4871
HARRISBURG	730	3595	4012
PHILADELPHIA	692	3247	3688
PITTSBURGH	801	4176	4451
PITTSBURGH U	734	3767	3992
SCRANTON	864	4195	4671
WILLIAMSPORT	850	4209	4487
RHODE ISLAND			
BLOCK ISLAND	783	3566	3912
PROVIDENCE	850	4095	4308
SOUTH CAROLINA			
CHARLESTON	265	1616	1785
CHARLESTON U	197	1264	1582
COLUMBIA	280	1871	2159
GRNVLLE-SPRTNBRG	415	2429	2559
SOUTH DAKOTA			
ABERDEEN	1124	5763	6470
HURON	1057	5620	6061
RAPID CITY	878	4890	5248
SIOUX FALLS	1023	5551	5904

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
TENNESSEE			
BRISTOL	509	2932	3358
CHATTANOOGA	470	2868	2826
KNOXVILLE	485	2813	2794
MEMPHIS	326	2234	2636
NASHVILLE	417	2574	2973
OAK RIDGE	556	3114	3118
TEXAS			
ABILENE	270	2025	2156
AMARILLO	492	2941	3239
AUSTIN	156	1270	1480
BROWNSVILLE	74	548	505
CORPUS CHRISTI	94	727	816
DALLAS FT WORTH	217	1636	1973
DEL RIO	125	1138	1352
EL PASO	354	2172	2275
GALVESTON	128	922	1025
HOUSTON INTERCON	178	1261	1231
LUBBOCK	397	2491	2838
MIDLAND	258	1932	2189
PORT ARTHUR	170	1274	1292
SAN ANGELO	254	1842	1891
SAN ANTONIO	166	1268	1354
VICTORIA	120	971	1060
WACO	200	1479	1734
WICHITA FALLS	295	2068	2387
UTAH			
MILFORD	880	4766	4719
SALT LAKE CITY	890	4278	4426
WENDOVER	915	4439	4412
VERMONT			
BURLINGTON	1260	5604	5752
VIRGINIA			
LYNCHBURG	550	3074	3308
NORFORK	445	2312	2698
RICHMOND	480	2671	3103
ROANOKE	523	2952	3337
WALLOPS ISLAND	586	2662	3105
WASHINGTON			
OLYMPIA	734	3420	3835
QUILLAYUTE	710	3915	3960
SEATTLE	633	3085	3302
SEATTLE-TACOMA	693	3324	3590
SPOKANE	940	4805	4974
STAMPEDE PASS R	1085	6238	6313
WALLA WALLA U	697	3278	3662
YAKIMA	659	4217	4518
WEST VIRGINIA			
BECKLEY	655	3084	4205
CHARLESTON	549	3161	3564
ELKINS	740	3967	4436
HUNTINGTON	535	3142	3583
PARKERSBURG U	609	3465	3712
WISCONSIN			
GREEN BAY	1130	5694	5948
LA CROSSE	1039	5296	5622
MADISON	1056	5157	5732
MILWAUKEE	978	4747	5344
WYOMING			
CASPER	1004	5192	5334
CHEYENNE	924	4656	5036
LANDER	1095	5680	5669
SHERIDAN	949	5221	5506

COOLING DEGREE DAYS

(Base 65°F.)

FEBRUARY 1978

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM	6	8	19
HUNTSVILLE	3	3	6
MOBILE	17	17	53
MONTGOMERY	3	3	31
ALASKA			
ANCHORAGE		0	0
ANNETTE	C	C	0
BARROW	0	C	0
BARTER ISLAND		0	0
BETHEL	C	C	0
BETTLES	0	0	0
BIG DELTA		0	0
COLD BAY	0	0	0
FAIRBANKS	C	0	0
GULKANA	0	0	0
HOMER	0	C	0
JUNEAU	0	C	0
KING SALMON	C	0	0
KODIAK	0	C	0
KOTZEBUE	C	0	0
MCGRATH	C	0	0
NOME	C	0	0
ST. PAUL ISLAND	0	0	0
SUMMIT	0	0	0
TALKEETNA	C	0	0
UNALAKLEET			
VALDEZ	C	0	0
YAKUTAT	C	0	0
ARIZONA			
FLAGSTAFF	0	0	0
PHOENIX	4	10	14
TUCSON	C	2	11
WINSLOW	0	0	0
YUMA	5	10	47
ARKANSAS			
FORT SMITH	4	4	0
LITTLE ROCK	5	5	0
CALIFORNIA			
BAKERSFIELD	6	6	0
BISHOP	C	0	0
BLUE CANYON	C	0	0
EUREKA U	0	0	0
FRESNO	C	0	0
LONG BEACH	0	34	7
LOS ANGELES	2	31	12
LOS ANGELES U	3	25	24
MT SHASTA R	C	0	0
OAKLAND	C	0	0
RED BLUFF	C	0	0
SACRAMENTO	C	0	0
SANDBERG R			
SAN DIEGO	C	14	10
SAN FRANCISCO	C	C	0
SAN FRANCISCO U	0	0	0
SANTA MARIA	C	0	0
STOCKTON	C	C	0
COLORADO			
ALAMOSA	0	C	0
COLORADO SPRINGS	0	0	0
DENVER	C	C	0
GRAND JUNCTION	C	0	0
PUEBLO	0	0	0
CONNECTICUT			
BRIDGEPORT	C	0	0
HARTFORD	C	0	0
DELAWARE			
WILMINGTON	0	0	0
DIST.OF COLUMBIA			
WASHINGTON DULLES	0	0	0
WASHINGTON NATIONAL	4	4	0
FLORIDA			
APPALACHICOLA	0	6	51
DAYTONA BEACH	36	48	99
FORT MYERS	86	128	202
JACKSONVILLE	18	16	65
KEY WEST	175	308	411
LAKELAND U	82	125	151
MIAMI	144	236	272
ORLANDO	75	93	142
PENSACOLA	13	16	64
TALLAHASSEE	4	4	62
TAMPA	63	80	150
WEST PALM BEACH	97	150	225
GEORGIA			
ATHENS	2	2	0
ATLANTA	1	1	0
AUGUSTA	C	0	14
COLUMBUS	5	5	22
MACON	4	4	29
ROME	0	0	0
SAVANNAH	12	12	34
HAWAII			
HILO	186	387	368
HONOLULU	209	487	438
KAHULUI	196	392	402
LIHUE	234	516	379
IDAHO			
BOISE	C	0	0
LEWISTON	C	0	0
POCATELLO	C	0	0
ILLINOIS			
CAIRO	C	0	0
CHICAGO O HARE	C	C	0
CHICAGO MIDWAY	C	0	0
MOLINE	C	0	0
PEORIA	C	0	0
ROCKFORD	C	C	0
SPRINGFIELD	C	0	0
INDIANA			
EVANSVILLE	C	0	0
FORT WAYNE	C	0	0
INDIANAPOLIS	C	C	0
SOUTH BEND	C	0	0
IOWA			
BURLINGTON	C	0	0
DES MOINES	C	C	0
DUBUQUE	C	C	0
SIOUX CITY	C	0	0
WATERLOO	C	0	0
KANSAS			
CONCORDIA	0	0	0
DODGE CITY	C	0	0
GOODLAND	C	0	0
TOPEKA	C	0	0
WICHITA	C	0	0
KENTUCKY			
COVINGTON	C	0	0
LEXINGTON	C	0	0
LOUISVILLE	C	0	0
LOUISIANA			
ALEXANDRIA	22	23	24
BATON ROUGE	25	27	42
LAKE CHARLES	23	23	52
NEW ORLEANS	18	22	65
SHREVEPORT	26	28	11
MAINE			
CARIBOU	C	0	0
PORTLAND	C	0	0
MARYLAND			
BALTIMORE	1	1	0
MASSACHUSETTS			
BLUE HILL OBS R	C	0	0
BOSTON	C	0	0
WORCHESTER	0	0	0
MICHIGAN			
ALPENA	C	0	0
DETROIT	C	0	0
DETROIT METRO	C	C	0
FLINT	C	0	0
GRAND RAPIDS	C	0	0
HOUGHTON LAKE	C	0	0
LANSING	C	0	0
MARQUETTE U	C	0	0
MUSKEGON	C	0	0
SAULT STE MARIE	0	0	0
MINNESOTA			
DULUTH	C	0	0
INTERNATIONAL FALLS	C	0	0
MINNEAPOLIS	C	0	0
ROCHESTER	C	0	0
ST CLOUD	C	0	0
MISSISSIPPI			
JACKSON	17	17	32
MERIDIAN	8	8	32
MISSOURI			
COLUMBIA REGIONAL	C	0	0
KANSAS CITY	C	0	0
ST JOSEPH	C	0	0
ST LOUIS	C	0	0
SPRINGFIELD	C	0	0
MONTANA			
BILLINGS	C	0	0
CLASCO	C	0	0
GREAT FALLS	C	C	0
HAVRE	C	0	0
HELENA	C	C	0
KALISPELL	C	C	0
MILES CITY	C	0	0
MISSOULA	C	0	0
NEBRASKA			
GRAND ISLAND	C	0	0
LINCOLN	C	C	0
NORFOLK	C	0	0
NORTH PLATTE	C	0	0
OMAHA	C	0	0
SCOTTSBLUFF	C	0	0
VALENTINE	C	0	0
NEVADA			
ELKO	C	0	0
ELY	C	0	0
LAS VEGAS	C	0	6
RENO	C	0	0
WINNEMUCCA	C	0	0
NEW HAMPSHIRE			
CONCORD	C	0	0
MT WASHINGTON OBS	0	0	0
NEW JERSEY			
ATLANTIC CITY	0	0	0
ATLANTIC CITY U	0	0	0
NEWARK	C	0	0
TRENTON U	0	0	0
NEW MEXICO			
ALBUQUERQUE	0	0	0
CLAYTON	0	0	0
ROSWELL	0	0	0
NEW YORK			
ALBANY	0	0	0
BINGHAMTON	0	0	0
BUFFALO	0	0	0
NEW YORK U	0	0	0
NEW YORK KENNEDY	0	0	0
NEW YORK LA GUARDIA	0	0	0
ROCHESTER	0	0	0
SYRACUSE	0	0	0
NORTH CAROLINA			
ASHEVILLE	0	0	0
CAPE HATTERAS R	0	0	0
CHARLOTTE	2	2	0
GREENSBORO	4	4	0
RALEIGH	3	3	0
WILMINGTON	17	19	9
NORTH DAKOTA			
BISMARCK	0	0	0
FARGO	0	0	0
WILLISTON	0	0	0
OHIO			
AKRON	0	0	0
CINCINNATI ABBE OB	0	0	0
CLEVELAND	C	0	0
COLUMBUS	0	0	0
DAYTON U	0	0	0
MANSFIELD	0	0	0
TOLEDO	0	0	0
YOUNGSTOWN	0	0	0
OKLAHOMA			
OKLAHOMA CITY	1	1	0
TULSA	6	6	0
OREGON			
ASTORIA	0	0	0
BURNS U	0	0	0
EUGENE	0	0	0
MEDFORD	0	0	0
PENDLETON	0	0	0
PORTLAND	0	0	0
SALEM	0	0	0
SEXTON SUMMIT R	0	0	0
PACIFIC AREA			
GUAM TAGUAC R	346	696	738
JOHNSTON	328	673	699
KOROR R	467	997	958
KWAJALEIN	458	941	978
MAJURO	424	875	961
PAGO PAGO	437	899	923
PONAPE R	445	947	940
TRUK MOEN ISLAND	466	973	964
WAKE	331	719	720
YAP R	437	886	927
PENNSYLVANIA			
ALLENTOWN	C	0	0
ERIE	C	0	0
HARRISBURG	C	0	0
PHILADELPHIA	C	0	0
PITTSBURGH	C	0	0
SCRANTON	0	0	0
WILLIAMSPORT	0	0	0
RHODE ISLAND			
BLOCK ISLAND	C	0	0
PROVIDENCE	0	0	0
SOUTH CAROLINA			
CHARLESTON	4	11	46
CHARLESTON U	13	14	32
COLUMBIA	10	12	5
GRNVLLE-SPRTNBRG	2	2	0
SOUTH DAKOTA			
ABERDEEN	C	C	0
HURON	C	C	0
RAPID CITY	C	C	0
SIOUX FALLS	C	C	0
TENNESSEE			
BRISTOL	C	C	0
CHATTANOOGA	C	C	6
KNOXVILLE	3	3	8
MEMPHIS	7	7	0
NASHVILLE	1	1	0
OAK RIDGE	1	1	0
TEXAS			
ABILENE	21	21	6
AMARILLO	C	C	0
AUSTIN	57	57	65
BROWNSVILLE	97	138	189
CORPUS CHRISTI	84	109	84
DALLAS FT WORTH	32	32	0
DEL RIO	74	74	31
EL PASO	C	C	0
GALVESTON	0	0	48
HOUSTON INTERCON	43	48	39
LUBBOCK	1	1	0
MIDLAND	10	10	0
PORT ARTHUR	29	31	43
SAN ANGELO	12	12	0
SAN ANTONIO	62	65	25
VICTORIA	54	61	45
WACO	33	33	7
WICHITA FALLS	21	21	0
UTAH			
MILFORD	C	C	0
SALT LAKE CITY	C	C	0
WENDOVER	C	C	0
VERMONT			
BURLINGTON	0	0	0
VIRGINIA			
LYNCHBURG	C	C	0
NORFORK	13	14	0
RICHMOND	0	0	0
ROANOKE	C	C	0
WALLOPS ISLAND	C	C	0
WASHINGTON			
OLYMPIA	C	C	0
QUILLAYUTE	C	C	0
SEATTLE	C	C	0
SEATTLE-TACOMA	C	C	0
SPOKANE	C	C	0
STAMPEDE PASS R	C	C	0
WALLA WALLA U	C	C	10
YAKIMA	C	0	0
WEST INDIES			
SAN JUAN P.R.	342	699	621
WEST VIRGINIA			
BECKLEY	C	C	0
CHARLESTON	C	1	0
ELKINS	C	C	0
HUNTINGTON	C	1	0
PARKERSBURG U	C	C	0
WISCONSIN			
GREEN BAY	C	C	C
LA CROSSE	C	C	0
MADISON	C	C	0
MILWAUKEE	C	C	0
WYOMING			
CASPER	C	0	0
CHEYENNE	C	C	0
LANDER	C	C	0
SHERIDAN	C	C	0

STORM SUMMARY

FEBRUARY 1976

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				[illegible]				HEAVY SNOWSTORMS AND BLIZZARDS				ICE STORMS				◊ ALL OTHER			
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	DAMAGE		[illegible]	[illegible]	DAMAGE		[illegible]	[illegible]	DAMAGE		[illegible]	[illegible]	DAMAGE		[illegible]	[illegible]	DAMAGE		[illegible]	[illegible]	DAMAGE	
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	PROP. (MILL. $)	CROPS	[illegible]	[illegible]	PROP. (MILL. $)	CROPS	[illegible]	[illegible]	PROP. (MILL. $)	CROPS	[illegible]	[illegible]	PROP. (MILL. $)	CROPS	[illegible]	[illegible]	PROP. (MILL. $)	CROPS	[illegible]	[illegible]	PROP. (MILL. $)	CROPS
Alabama																													
Alaska																													
Arizona																											5		
Arkansas	1	2	3	16	9					5	1																4		
California																													
Colorado											3							1	1	1									
Connecticut											3																		
Delaware											1																		
Florida	1	1			2						3	3											8	3					
Georgia	3	2			5						5																		
Hawaii																													
Idaho											5									3							1	1	5	6
Illinois	2	1		1	3					1	6																		3	
Indiana											4													1					
Iowa																				3				6	C				
Kansas											5									3								4	
Kentucky											3									3								5	
Louisiana	2	2		1	5	1	1	1		1	5	1																	
Maine											7									3				4			1	1	
Maryland & DC											5											1	3						
Massachusetts											6																	6	
Michigan											4									3									
Minnesota																													
Mississippi	3	1	1	77	6			1	1	1	5	1		4	1													1	1
Missouri	5	1	1	24	6					2	2	6						50	2	2								5	
Montana											6																		
Nebraska																		1	6										
Nevada																													
New Hampshire											1													4					
New Jersey																		1	1										
New Mexico																													
New York											1							1	1	3							1	6	
North Carolina	7	1		2	6					1	32	6															4	4	
North Dakota																													
Ohio	1	1			6			1				5			4													1	C
Oklahoma	3	1			4			1				4																	
Oregon												1																5	
Pacific																													
Pennsylvania												3								3									
Puerto Rico																													
Rhode Island												6																6	
South Carolina											3	6	4															4	5
South Dakota																													
Tennessee	3	2		12	6						5	3		1	4														
Texas	1	1			2			6	2			6		2	1														
Utah												1						1	100	6									
Vermont																				3									
Virginia												3																	
Virgin Islands	1	1			1							1	C																
Washington												5																	
West Virginia																													
Wisconsin																			7	4									
Wyoming												3																	

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FEBRUARY 1976

Herbert J. Thompson, Office of Hydrology

Near the middle of the month several days of warm temperatures caused extensive snowmelt over the Lower Great Lakes Drainage in Michigan, Indiana, Ohio, and New York. Ice jams became a problem, particularly in western New York and Pennsylvania where they caused flooding along the Allegheny River and record stages on Buffalo Creek at Gardenville, NY, and on Cattaraugus Creek at Sunset Bay, NY, with damage at the latter community estimated at $1.1 million. This thaw was followed by two large low pressure systems which moved from the central plains up the Ohio River into the Northeast on the 15th-19th and the 20th-23d. Rainfall from these storms combined with the previous snowmelt caused quite extensive flooding in the lower Great Lakes, Ohio River Basin, and Hudson and upper Susquehanna River Drainages. This flooding was generally light except in the Wabash Basin in Indiana where major flooding occurred with losses estimated at $4.7 million. Significant flooding also resulted on the lower Ohio River. These storms also caused light flooding in the Illinois Basin in Illinois and on a few streams in the East Gulf Drainage and the White and lower Mississippi Basins.

Flooding continued from January on several streams in the South Atlantic Slope and East Gulf of Mexico Drainages. The failure of a small dam in the headwaters of the Tennessee River caused four deaths near Asheville, NC. There was serious flash flooding on Oahu, Hawaii, and minor stream and flash flooding in Arizona. Some losses from moderate flooding occurred in the Williamette Basin in Oregon. The record-breaking drought in southern California ended during February.

Hydrologic events of unusual significance or involving loss of life or property damage are discussed in more detail below.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	GREAT LAKES-ST. LAWRENCE DRAINAGE		
Great Lakes Drainage in Michigan	The month of February began with an above normal snowpack existing over southern lower Michigan and a near normal snowpack in central and northern Michigan. The absence of any thawing periods from about December 20, 1975 to February 10, 1976, caused a gradual buildup in snowpack over areas of Michigan (generally the lower third of Lower Michigan) that generally experience alternate freeze-thaw cycles throughout the winter months. A thawing period finally commenced February 10. Several ideal thawing days occurred, accompanied by strong winds with low dew points and the absence of any precipitation. Many rivers rose to near bankfull levels but no significant flooding occurred through this thaw period. However, rain during the night of the 16th amounted from 0.5 to 1 inch and, except for extreme southeastern Michigan, fell on snow still on the ground, which caused additional runoff. Extensive minor flooding occurred on many streams, including the Elkhart, Flat, Rogue, Red Cedar, Shiawassee, Saginaw, Clinton, Huron, Saline, Raisin, Lower Grand, and Middle and Lower Rouge Rivers. Crests were generally less than a foot over flood stage but 1 to 2 feet of flooding occurred on portions of the Clinton, Middle and Lower Rouge Rivers, and the Saline River. The Raisin River crested 2.3 feet over flood stage at Adrain. Rivers were beginning to recede when additonal rainfall of 0.5 to 1.5 inches occurred the evening of the 20th. Flooding occurred on the Fawn, Upper St. Joseph, Thornapple, Red Cedar, Lower Grand, Shiawassee, Flint,Saginaw, Clinton, and Huron Rivers and continued on the Raisin River. The Lower Grand crested 1.4 feet over flood stage at Comstock Park but otherwise crests were less than a foot over flood stage.	0	17

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FEBRUARY 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	GREAT LAKES-ST. LAWRENCE DRAINAGE-Cont'd		
	February ended with no snowpack over the southern third of the lower penisula and generally only 2-6 inches of snow remaining in the central third. River levels were high, near bankfull in most cases, and basins were saturated.		
Lake Erie Drainage in Indiana and Ohio	The first nine days of February were very cold with snow accumulating to depths of up to 6 inches and water equivalents of 0.5 to 1.5 inches. Warm Weather beginning on the 10th caused rapid melting of the snow and ice jams on some streams which with locally heavy rainfall resulted in flooding in the Maumee and Vermilion River Basins. A rainy period on the 15th-18th attributed to open waves moving along a quasi-stationary front resulted in amounts of 1.5 to over 3 inches and crests of 4 to 6 feet over flood stage on the St. Marys, St. Joseph's and Tiffin Rivers, tributaries of the Maumee. Crests on the main stem of the Maumee ranged from 6.6 feet over flood stage at Fort Wayne, IN, to about 2 feet over flood stage on the lower reach of the river. Ice jams were a problem in the Maumee Basin. The Cuyahoga River reached a crest of 20.7 feet (Flood Stage 19 feet) at Independence, OH,--the highest stage there since 1959. The Chagrin River went over banks at Willoughby, OH, but crested 0.5 foot below the 13 foot flood stage. However, an ice jam several miles above the gage caused the evacuation of many homes. Minor flooding occurred along the Sandusky River with crests less than a foot over flood stage.	0	37
Great Lakes Drainage in New York	Cold temperatures early in the month encouraged ice formation and accumulation of snow with water contents of up to over 5 inches in the higher elevations. Some ice jams remained in place from the preceeding month. Rainfall of about 2 inches and warmer temperatures were associated with the storm of 15th-18th. In the Buffalo area ice jams caused persistent problems. A large ice jam in the lower portion of Cattaraugus Creek moved downstream to the mouth due to high waters in the creek about 10:30 a.m. on the 16th and combined with the Lake Erie ice at the mouth of the creek. Flooding began within twenty minutes and soon became the flood of record, exceeding the 1963 flood by 7 inches. Damage in the resort community of Sunset Bay was estimated at $1.1 million by the Buffalo District Corps of Engineers. The ice jam was finally broken up with the help of dynamite on the 18th. No stage data is available. An ice jam on Cayuga Creek in Lancaster persisted into February. Although the creek crested twice above flood stage behind this jam, no damage occurred due to its location in a park. The ice jam broke without consequence on the 16th. Cazenovia Creek experienced some ice jam induced	0	N/A

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	GREAT LAKES-ST. LAWRENCE DRAINAGE-Cont'd		
	flooding upstream of Union Road in West Seneca on the 16th. This was upstream of the gage which showed relatively normal readings. Many homes had considerable basement flooding. This jam broke up on the 16th with no ill effects downstream. Buffalo Creek at Gardenville crested at a new record stage of 13.1 feet, 6.1 feet over flood stage due to an ice jam on the 16th. Minor flooding occurred near Union Road and for a time the ice came within a couple feet of the low steel of a railroad bridge. This ice jam also moved out on the 16th with no damage downstream. Minor flooding occurred on the upper Genessee River on the 17th through the 19th and on Black and Oatka Creeks on the 17th through the 21st. The Mt. Morris Dam, which protects the lower Genessee River Valley was reported 70% full on the 24th and was emptied as rapidly as possible without raising the river to flood stage below the dam.		
	ATLANTIC SLOPE DRAINAGE		
New England Streams	Flooding continued on the Charles River from January with a crest 2 feet over flood stage at Charles River Village, MA, on the 2d. A major problem occurred on the Charles River at Waltham and Watertown, MA. The gates at a dam in Waltham froze and the flooded Charles River backed up rapidly causing flooding in sections of Waltham and Watertown. The ice at the gate was broken by a steel ball on a derrick. Local people claim the river was one foot higher than 1955 in the downtown area. At least 25 commercial buildings and a number of private homes were inundated. The Connecticut River also continued over flood stage at the first of the month at White River Junction, VT, due to ice jams. Minor flooding of this type recurred there again on the 10th and 11th.	0	1,000
Hudson and Susquehanna River Basins	February was a warm,very wet, and very rainy month over the area. The monthly mean temperature was 31.5^{o} at Albany, 8.0^{o} above normal. Snowfall was only 4.4 inches, of .37 water content. The remainder of the 2.60 inches of precipitation fell as rain or freezing rain. Precipitation was 123% of normal. The extreme cold of January along with the thaw on January 26th produced a large amount of jamming on the Susquehanna and its tributaries and a bad ice jam on the Mohawk river at Tribes Hill. There was also a large jam in the Hudson Estuary just downstream of Troy, in the Menands and Watervliet areas. February's warm and rainy weather was most unfavorable. Action started early, on the first of the month, with rain and warming into the mid 40's. After enough for about a quarter inch of runoff the passage of cold front abruptly turned the rain into a driving blizzard, halting both runoff and travel throughout the area, and was followed by another period of bitter cold.	0	N/A

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE-Cont'd		
	This period of bitter cold resulted in freezing and hardening of most of the ice jams. One location, Prattsville on the Schoharie headwaters in the Catskills, actually went above flood stage from the backup and freezing. Considerable warming occurred on the 10th with some light rain during the night which turned to snow and cold shortly afterward, but the warm weather returned a day later. Some gentle rain also fell on the 15th. However, starting on the evening of the 16th, about an inch of rain fell in about a nine-hour period, accompanied by temperatures in the 40's and melting of much of the crusty snow and ice in the lower elevations. Rapid rises of two to five feet occurred almost immediately in both the Schoharie Creek and the upper Susquehanna River. The ice jam which had been lodged at Tribes Hill on the Mohawk River gave way about 5 p.m. on the 17th, under pressure from a surge of water coming out of the Schoharie Creek, and sent a large surge of water and ice down the river.This ice jammed in the Stockade area of Schenectady about 4 a.m. on the 18th, causing considerable lowland inundation, and giving the Stockade its annual ritual of water and ice chunks. The water started to slowly recede as the peak flow went past but continued above flood stage. Rain started again late morning on the 18th, and a second surge of water came down the Mohawk into the ice jam, flooding over the Stockade neighborhood again on the 19th, and cresting at a stage of 226.5 feet at 11 p.m. when the ice jam broke. The waters dropped rapidly, more than five feet during the night, leaving Stockade residents with piano-size chunks of ice in their neighborhood. The ice jam moved down to just above the Twin Bridges where the Northway crosses the Mohawk, causing a large amount of water to back up into low-lying areas along the river but flooding relatively few homes. The ice remained there with the ponded water gradually draining underneath as the river flow diminished. Warm, sunny weather toward the end of the month weakened it so much it simply disintegrated without any incident. Rain and snowmelt from the 1.5 foot accumulations in the Southern Tier kept the Susquehanna and Chenango high until the end of the month with ice jam problems at Owego, Kirkwood, Conklin, and Windsor. The ice finally moved out on the 20th with assistance from the runoff caused by the rain on the 18th. Crests on the Chenango River were less than a foot over flood stage, while from 1 to 3 feet of flooding occurred along the upper Susquehanna River in New York. Minor flooding was reported along the Elmira-Chemung reach of the Chemung River in New York where flood stages are questionable. On the lower Susquehanna in Pennsylvania crests were from three-quarters to bankfull with no flooding reported.		
South Atlantic Coast Drainage	Flooding was in progress at the beginning of the month from the heavy rains of late January augmented by amounts	0	2,000

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

Basins and Streams	FLOOD EVENT	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE-Cont'd		
	of 0.5 to 1.5 inches on February 2-3. Crests were about 3 feet over flood stage on the lower Tar River and 2 to 4 feet over flood stage along the Neuse River. From 2 to 3 feet of flooding occurred along the middle reach of Cape Fear River and on the Lumber River where flooding continued until the middle of the month. Crests less than a foot over flood stage occurred on the Little Pee Dee, lower Pee Dee, and Edisto Rivers. Losses of $2,000 were reported in the Pee Dee Basin. Lowland flooding continued on the lower Roanoke River from reservoir releases and on the lower Savannah River until the middle of the month. Monthly rainfall totals were only 30 to 50% of normal over much of the area.		
	EAST GULF OF MEXICO DRAINAGE		
	Flooding from the heavy rains of late January continued into early February on the lower Appalachicola, Choctawhatchee, Pearl, and Tombigbee Rivers. Locally heavy rains caused minor flooding in the headwaters of the Tombigbee, and excessive releases from Ross Barnett Reservoir caused minor flooding on the Pearl River at Jackson, MS, during the month.	0	N/A
	UPPER MISSISSIPPI BASIN		
Minnesota, Wisconsin and Northern Illinois tributaries	A major storm occurred on the 17th - 18th followed closely by another on the 21st-22d. The first storm dropped 4 to 9 inches of snow with 0.5 to 1.5 inches of water equivalent in southwest and southcentral Wisconsin. The second storm produced a similar water equivalent in the same area but new snow amounts were as high as 13 inches at Reedsburg in southcentral Wisconsin. However, most of this was rain and snow mixed. Minor flooding occurred near the mouth of the Kickapoo River at Steuben with a crest 0.4 foot over floodstage on the 29th. The Mississippi River between La Crosse, WI, and Guttenberg, IA, showed 1 to 2 foot rises as a result of the mid-month storms of rain and snow. Minor flooding also resulted from snowmelt on the East Fork Pecatonica at Blanchardville, WI, and the Pecatonica River at Martintown, WI. These are tributaries of the Rock River in northern Illinois.	0	N/A
Illinois River	During the week ending on the 15th warm temperatures melted the basin snow cover with depths of up to 6 inches in the north. Rains of up to 2 inches on the 16th and about an inch on the 21st caused light flooding on the Illinois from Morris, IL, downstream with crests from 2.2 to 2.6 feet over flood stage at most stations from the 22d to the 29th. Flooding on the lower Illinois extended into March with the crest at Meredosia also in March.	0	N/A
	OHIO BASIN		
Allegheny River Basin	Flooding developed in the basin as a result of melting of a snowcover which ranged up to 22 inches in depth followed by rain of up to 2.4 inches on the 17th-18th. Over two feet of flooding occurred on Conoewango Creek at Russell, PA, and along the Clarion River. Minor	0	407

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FEBRUARY 1976

Basin and Streams	FLOOD EVENT	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)
	OHIO BASIN-Cont'd		
	flooding occurred on Franch Creek at Meadville, PA. The upper Allegheny crested 4.4 feet over flood stage at Olean, NY, with minor flooding at Eldred, PA, and Salamanca, NY. Downstream at Parker, PA, an ice jam caused a crest 6.3 feet over flood stage. Flooding below Parker, also caused by ice, was generally rather minor, except for a crest 2.3 feet over flood stage at Freeport, and extended downstream to Lock 3 at Acmetonia, PA.		
Ohio River tributaries in Ohio	The storm of the 17th-18th deposited amounts of 1.5 to over 2 inches over the area which combined with melting of a snow cover ranging up to 9 inches in depth to cause flooding on several streams. The Mahoning River reached nearly 4 feet over flood stage at Youngstown and minor flooding occurred on Kilbuck Creek, the Hocking River at Enterprise, and the Little Miami River at Milford. Some property damage occurred in the headwaters of the Scioto River where a crest 2.7 feet over flood stage occurred at Prospect. Crests about 5 feet over flood stage were reported on the lower Scioto at Circleville and Piketon and on Ohio Brush Creek at West Union. This was primarily agricultural land flooding.	0	N/A
Ohio River tributaries in Kentucky	The storm of the 17th-18th resulted in heavy rainfall over the area with amounts of 3 to 4 inches and locally up to 6 inches in the Green River Basin where widespread flash flooding occurred. Some primary roads and numerous secondary roads were closed by high water. Up to 7 feet of flooding occurred in the lower Green River and the Rough River crested 3.4 feet over flood stage at Dundee. In the Salt River Basin Brashears Creek and the Rolling Fork crested about 7 and 10 feet over flood stage at Taylorsville and Boston respectively. Extensive lowland flooding occurred along these streams.	0	N/A
Wabash River Basin	Major flooding occurred in the basin during February. The lower portions of the White River were 1 - 2 feet above flood stage on the first of the month. Minor bottomland overflows were observed and flooding ended by the 4th. Most all streams and rivers continued to fall through the 10th. A very warm spell beginning on the 10th caused rapid snow melt throughout northern Indiana. Water equivalents of 0.5 to 1.5 inches produced sharp rises in the headwaters of the Wabash and White River Basins. By the 11th the upper reaches varied from just below to just above flood stage, and by the 15th all of Indiana's major rivers were three-fourths full to bankfull. On the 15th to the 18th open waves moving through Indiana along a quasi-stationary front produced 1.5 to 2.5 inches of rainfall. The heaviest amounts fell across the headwaters of the Wabash and White Rivers on the evening hours of the 16th. Widespread flooding along the flood plains of Indiana's rivers followed. Although pool stages and releases of reservoirs in the northern half of the State were near record levels, they	0	4,700

Basins and Streams	FLOOD EVENT	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)
	OHIO BASIN-Cont'd		

did a very good job in keeping flooding to a minimum. A few points along the upper Wabash crested at 2 to 3 feet above flood stage.

The middle and lower Wabash crested at stages 3-10 feet above flood stage. These crests are 1 to 2 feet higher than those recorded during late February 1975. The river crest reached Carmel on the morning of the 27th and was falling at all reporting points by the end of the month.
The upper White River also crested 2 to 3 feet above flood stage. The middle and lower reaches crested 3 - 6 feet above flood stage. These values are 1 - 2 feet lower than those of late February last year. The river was falling at the end of the month, but the lower reach remained above flood stage.
Extensive lowland flooding occurred along the flood plains of the Wabash and White Rivers from the middle through the end of the month. Some secondary and a few state roads were closed. The Soil Conservation Service reported secondary road damabe in Fountain, Warren, and Vermillion counties along the middle Wabash. They also reported some winter wheat destroyed along the lower Wabash in Gibson County.

Tabulated below are preliminary estimates of losses provided by the Corps of Engineers.

Stream	Acres Inundated	Estimated Damage
Wabash River		
Wildcat Creek to White River	122,000	$2,353,000
Raccoon Creek		
Mansfield Dam to Wabash River	50	1,000
Embarras River		
Mile 63.8 to Wabash River	13,000	178,000
Eel River		
Mill Creek to White River	12,000	34,000
White River		
Muncie, Ind. to Wabash River	55,000	2,016,000
East Fork White River		
Columbus, Ind. to White River	13,600	118,000
Total	215,650	$4,700,000

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

Basin and Streams	FLOOD EVENT	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)
	OHIO BASIN-Cont'd		
Tennessee River Basin	The failure of the dam which formed Bearwallow Lake on Newfound Creek in the French Broad River Basin in the headwaters of the Tennessee River drowned four members of the Ledbetter family on the 22d. It is believed that the dam of earth and rock fill became waterlogged with seepage and collapsed of its own weight. The area of the lake was about three acres with depths of up to 30 feet. About 25 to 30 acre-feet of water were released. Damage extended about 5 miles downstream with depths of flow of 10 to 15 feet indicated. Losses include 6 homes, 3 trailers, 13 farm buildings, 4 cars, 2 tractors, 2 trucks, a community park, some livestock and extensive loss of topsoil from the several small farms affected. The drop in elevation for 0.8 mile below the dam is about 880 feet.	4	200
Ohio River Main Stem	On the upper Ohio rapid melting of a heavy snowpack combined with rainfall of up to 2.5 inches produced heavy runoff from the Allegheny River and tributaries in Eastern Ohio as discussed above. The Ohio approached flood stage from Hannibal Locks to Point Pleasant, WV, and exceeded flood stage by 0.7 foot at Racine Locks, WV. On the lower Ohio the high flows from upstream combined with heavy runoff from tributaries in western Ohio and Kentucky and the Wabash Basin to cause flooding at most points from Carrelton down to the mouth. The maximum flooding of 12 feet occurred at Fords Ferry, KY. Flooding continued into March at and below Newburgh, IN.	0	N/A
	WHITE BASIN		
Cache River	Flooding continued from January around Patterson, AR, with the crest 1.2 feet over flood stage on the 1st and ended on the 14th. The storm of the 17th-18th deposited rains of about 1.5 inches over the basin and resulted in renewed flooding which extended into March with a crest 1.9 feet over flood stage on the 25th. This seasonal type of flooding is normal for this river and occurred this year even tho rainfall was below normal for the last two months. Considerable farmland was inundated at these stages.	0	N/A
	ARKANSAS BASIN		
	Precipitation was generally well below normal over the basin and no flooding was reported.	0	0
	LOWER MISSISSIPPI BASIN		
St. Francis and Big Black Rivers	Lowland flooding continued along the Big Black River early in February from the rains of late January. The storm of the 17th-18th with amounts of 1.5 inches or more caused flooding on the St. Francis River with a crest 2.5 feet over flood stage at St. Francis, AR, on the 19th. This storm also caused flooding on the upper Big Black River, which crested 3.3 feet over flood stage at West, MS, on the 22d as a result of additional rains of an inch	0	N/A

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FEBRUARY 1976

Basin and Streams	FLOOD EVENT	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)
	LOWER MISSISSIPPI BASIN-Cont'd		
	or so on the 21st-22d.		
	WEST GULF OF MEXICO DRAINAGE		
Calcasieu River	The storms of the 17th-18th and 21st-22d caused a few days of minor flooding on the upper Calcasieu River with a crest 1.3 feet over flood stage at Hineston, LA, on the 25th.	0	N/A
	GULF OF CALIFORNIA DRAINAGE		
Lower Colorado River Basin	Flash flooding was reported in northern and western Mohave County on the 5th between Kingman and Bullhead City, AZ. Rains of 2 to over 4 inches on the 9th-10th caused some flooding on several streams in Arizona. Snowmelt was a factor at the higher elevations. Streams affected include the Big Sandy and Verde Rivers and Oak and Tonto Creeks. No stage reports are available. Damage was light. Stages on the Big Sandy River were reported to be the highest since 1939. However, this is a very sparsely populated atea.	0	N/A
	PACIFIC SLOPE DRAINAGE		
Lower California Streams	Heavy rains on the 4th-10th ended the near record drought in southern California. Totals for the period include 3.7 inches in downtown Los Angeles, 2.2 inches at the Los Angeles Airport, 5.4 inches in San Diego and nearly 9 inches at Lake Arrowhead. The San Diego River flooded shopping centers in the Mission Valley area on several occasions during this period.	0	N/A
Northern California Streams	Above normal rainfall with moderate to heavy rains the middle of February and the last week of the month caused warning stages to be exceeded on the Smith and Eel Rivers. However, no flooding was reported.	0	0
North Coastal and Willamette Basin Streams in Oregon	Precipitation occurred almost daily over this area after the 11th. Heavy rains on the 16th-17th totaled 4.8 inches at Nehalem 9NE and caused light flooding on the Wilson River with damage estimated at $4,600 by the Corp of Engineers. A second storm on the 25th-27th caused rainfall of 4 to 5.5 inches over the central Coast Range and about 4 inches over the central Cascades with flooding on several streams in the Willamette Basin. The Pudding River crested 2.5 feet over flood stage at Aurora and Johnson Creek 1.6 feet over flood stage at Sycamore. Nearly a foot of flooding occurred along the South Yamhill River. Damage in the Willamette Basin was estimated at $124,100 by the Corps of Engineers.	0	129
	HAWAII		
Oahu	Serious flash flooding occurred on the 7th-8th in the Haleiwa-Waialua and Makaha-Waianae areas of Oahu with 500 people evacuated. There were no fatalities. During the 48-hour period 2 a.m. on the 6th to 2 a.m. on the 8th Makaha Valley received 19.85 inches of rain and Waialua 17.72 inches. The U. S. Geological Survey reported record peak discharges on most streams on the leeward side of the island. A small private reservoir of 1.5 million gallon	0	274

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FLOOD EVENT — FEBRUARY 1976

Basin and Streams	HAWAII-Cont'd	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)
	capacity in the Makaha Valley threatened to rupture and was pumped into an adjacent reservior as a precautionary measure. Public damage to roads and a bridge amounted to $55,000. Private damage of $219,000 included 86 homes with light to moderate damage and 3 with severe damage, 13 vehicles, 5 stores, 1 small boat, and 3 head of livestock lost.		

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	GREAT LAKES-ST. LAWRENCE DRAINAGE-Cont'd		
	flooding upstream of Union Road in West Seneca on the 16th. This was upstream of the gage which showed relatively normal readings. Many homes had considerable basement flooding. This jam broke up on the 16th with no ill effects downstream. Buffalo Creek at Gardenville crested at a new record stage of 13.1 feet, 6.1 feet over flood stage due to an ice jam on the 16th. Minor flooding occurred near Union Road and for a time the ice came within a couple feet of the low steel of a railroad bridge. This ice jam also moved out on the 16th with no damage downstream. Minor flooding occurred on the upper Genessee River on the 17th through the 19th and on Black and Oatka Creeks on the 17th through the 21st. The Mt. Morris Dam, which protects the lower Genessee River Valley was reported 70% full on the 24th and was emptied as rapidly as possible without raising the river to flood stage below the dam.		
	ATLANTIC SLOPE DRAINAGE		
New England Streams	Flooding continued on the Charles River from January with a crest 2 feet over flood stage at Charles River Village, MA, on the 2d. A major problem occurred on the Charles River at Waltham and Watertown, MA. The gates at a dam in Waltham froze and the flooded Charles River backed up rapidly causing flooding in sections of Waltham and Watertown. The ice at the gate was broken by a steel ball on a derrick. Local people claim the river was one foot higher than 1955 in the downtown area. At least 25 commercial buildings and a number of private homes were inundated. The Connecticut River also continued over flood stage at the first of the month at White River Junction, VT, due to ice jams. Minor flooding of this type recurred there again on the 10th and 11th.	0	1,000
Hudson and Susquehanna River Basins	February was a warm,very wet, and very rainy month over the area. The monthly mean temperature was 31.5^{O} at Albany, 8.0^{O} above normal. Snowfall was only 4.4 inches, of .37 water content. The remainder of the 2.60 inches of precipitation fell as rain or freezing rain. Precipitation was 123% of normal. The extreme cold of January along with the thaw on January 26th produced a large amount of jamming on the Susquehanna and its tributaries and a bad ice jam on the Mohawk river at Tribes Hill. There was also a large jam in the Hudson Estuary just downstream of Troy, in the Menands and Watervliet areas. February's warm and rainy weather was most unfavorable. Action started early, on the first of the month, with rain and warming into the mid 40's. After enough for about a quarter inch of runoff the passage of cold front abruptly turned the rain into a driving blizzard, halting both runoff and travel throughout the area, and was followed by another period of bitter cold.	0	N/A

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE-Cont'd		
	This period of bitter cold resulted in freezing and hardening of most of the ice jams. One location, Prattsville on the Schoharie headwaters in the Catskills, actually went above flood stage from the backup and freezing. Considerable warming occurred on the 10th with some light rain during the night which turned to snow and cold shortly afterward, but the warm weather returned a day later. Some gentle rain also fell on the 15th. However, starting on the evening of the 16th, about an inch of rain fell in about a nine-hour period, accompanied by temperatures in the 40's and melting of much of the crusty snow and ice in the lower elevations. Rapid rises of two to five feet occurred almost immediately in both the Schoharie Creek and the upper Susquehanna River. The ice jam which had been lodged at Tribes Hill on the Mohawk River gave way about 5 p.m. on the 17th, under pressure from a surge of water coming out of the Schoharie Creek, and sent a large surge of water and ice down the river.This ice jammed in the Stockade area of Schenectady about 4 a.m. on the 18th, causing considerable lowland inundation, and giving the Stockade its annual ritual of water and ice chunks. The water started to slowly recede as the peak flow went past but continued above flood stage. Rain started again late morning on the 18th, and a second surge of water came down the Mohawk into the ice jam, flooding over the Stockade neighborhood again on the 19th, and cresting at a stage of 226.5 feet at 11 p.m. when the ice jam broke. The waters dropped rapidly, more than five feet during the night, leaving Stockade residents with piano-size chunks of ice in their neighborhood. The ice jam moved down to just above the Twin Bridges where the Northway crosses the Mohawk, causing a large amount of water to back up into low-lying areas along the river but flooding relatively few homes. The ice remained there with the ponded water gradually draining underneath as the river flow diminished. Warm, sunny weather toward the end of the month weakened it so much it simply disintegrated without any incident. Rain and snowmelt from the 1.5 foot accumulations in the Southern Tier kept the Susquehanna and Chenango high until the end of the month with ice jam problems at Owego, Kirkwood, Conklin, and Windsor. The ice finally moved out on the 20th with assistance from the runoff caused by the rain on the 18th. Crests on the Chenango River were less than a foot over flood stage, while from 1 to 3 feet of flooding occurred along the upper Susquehanna River in New York. Minor flooding was reported along the Elmira-Chemung reach of the Chemung River in New York where flood stages are questionable. On the lower Susquehanna in Pennsylvania crests were from three-quarters to bankfull with no flooding reported.		
South Atlantic Coast Drainage	Flooding was in progress at the beginning of the month from the heavy rains of late January augmented by amounts	0	2,000

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FEBRUARY 1976

Basins and Streams	FLOOD EVENT	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE-Cont'd		
	of 0.5 to 1.5 inches on February 2-3. Crests were about 3 feet over flood stage on the lower Tar River and 2 to 4 feet over flood stage along the Neuse River. From 2 to 3 feet of flooding occurred along the middle reach of Cape Fear River and on the Lumber River where flooding continued until the middle of the month. Crests less than a foot over flood stage occurred on the Little Pee Dee, lower Pee Dee, and Edisto Rivers. Losses of $2,000 were reported in the Pee Dee Basin. Lowland flooding continued on the lower Roanoke River from reservoir releases and on the lower Savannah River until the middle of the month. Monthly rainfall totals were only 30 to 50% of normal over much of the area.		
	EAST GULF OF MEXICO DRAINAGE		
	Flooding from the heavy rains of late January continued into early February on the lower Appalachicola, Choctawhatchee, Pearl, and Tombigbee Rivers. Locally heavy rains caused minor flooding in the headwaters of the Tombigbee, and excessive releases from Ross Barnett Reservoir caused minor flooding on the Pearl River at Jackson, MS, during the month.	0	N/A
	UPPER MISSISSIPPI BASIN		
Minnesota, Wisconsin and Northern Illinois tributaries	A major storm occurred on the 17th - 18th followed closely by another on the 21st-22d. The first storm dropped 4 to 9 inches of snow with 0.5 to 1.5 inches of water equivalent in southwest and southcentral Wisconsin. The second storm produced a similar water equivalent in the same area but new snow amounts were as high as 13 inches at Reedsburg in southcentral Wisconsin. However, most of this was rain and snow mixed. Minor flooding occurred near the mouth of the Kickapoo River at Steuben with a crest 0.4 foot over floodstage on the 29th. The Mississippi River between La Crosse, WI, and Guttenberg, IA, showed 1 to 2 foot rises as a result of the mid-month storms of rain and snow. Minor flooding also resulted from snowmelt on the East Fork Pecatonica at Blanchardville, WI, and the Pecatonica River at Martintown, WI. These are tributaries of the Rock River in northern Illinois.	0	N/A
Illinois River	During the week ending on the 15th warm temperatures melted the basin snow cover with depths of up to 6 inches in the north. Rains of up to 2 inches on the 16th and about an inch on the 21st caused light flooding on the Illinois from Morris, IL, downstream with crests from 2.2 to 2.6 feet over flood stage at most stations from the 22d to the 29th. Flooding on the lower Illinois extended into March with the crest at Meredosia also in March.	0	N/A
	OHIO BASIN		
Allegheny River Basin	Flooding developed in the basin as a result of melting of a snowcover which ranged up to 22 inches in depth followed by rain of up to 2.4 inches on the 17th-18th. Over two feet of flooding occurred on Conoewango Creek at Russell, PA, and along the Clarion River. Minor	0	407

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FEBRUARY 1976

Basin and Streams	FLOOD EVENT	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)
	OHIO BASIN-Cont'd		
	flooding occurred on Franch Creek at Meadville, PA. The upper Allegheny crested 4.4 feet over flood stage at Olean, NY, with minor flooding at Eldred, PA, and Salamanca, NY. Downstream at Parker, PA, an ice jam caused a crest 6.3 feet over flood stage. Flooding below Parker, also caused by ice, was generally rather minor, except for a crest 2.3 feet over flood stage at Freeport, and extended downstream to Lock 3 at Acmetonia, PA.		
Ohio River tributaries in Ohio	The storm of the 17th-18th deposited amounts of 1.5 to over 2 inches over the area which combined with melting of a snow cover ranging up to 9 inches in depth to cause flooding on several streams. The Mahoning River reached nearly 4 feet over flood stage at Youngstown and minor flooding occurred on Kilbuck Creek, the Hocking River at Enterprise, and the Little Miami River at Milford. Some property damage occurred in the headwaters of the Scioto River where a crest 2.7 feet over flood stage occurred at Prospect. Crests about 5 feet over flood stage were reported on the lower Scioto at Circleville and Piketon and on Ohio Brush Creek at West Union. This was primarily agricultural land flooding.	0	N/A
Ohio River tributaries in Kentucky	The storm of the 17th-18th resulted in heavy rainfall over the area with amounts of 3 to 4 inches and locally up to 6 inches in the Green River Basin where widespread flash flooding occurred. Some primary roads and numerous secondary roads were closed by high water. Up to 7 feet of flooding occurred in the lower Green River and the Rough River crested 3.4 feet over flood stage at Dundee. In the Salt River Basin Brashears Creek and the Rolling Fork crested about 7 and 10 feet over flood stage at Taylorsville and Boston respectively. Extensive lowland flooding occurred along these streams.	0	N/A
Wabash River Basin	Major flooding occurred in the basin during February. The lower portions of the White River were 1 - 2 feet above flood stage on the first of the month. Minor bottomland overflows were observed and flooding ended by the 4th. Most all streams and rivers continued to fall through the 10th. A very warm spell beginning on the 10th caused rapid snow melt throughout northern Indiana. Water equivalents of 0.5 to 1.5 inches produced sharp rises in the headwaters of the Wabash and White River Basins. By the 11th the upper reaches varied from just below to just above flood stage, and by the 15th all of Indiana's major rivers were three-fourths full to bankfull. On the 15th to the 18th open waves moving through Indiana along a quasi-stationary front produced 1.5 to 2.5 inches of rainfall. The heaviest amounts fell across the headwaters of the Wabash and White Rivers on the evening hours of the 16th. Widespread flooding along the flood plains of Indiana's rivers followed. Although pool stages and releases of reservoirs in the northern half of the State were near record levels, they	0	4,700

Basins and Streams	FLOOD EVENT	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)

OHIO BASIN-Cont'd

did a very good job in keeping flooding to a minimum. A few points along the upper Wabash crested at 2 to 3 feet above flood stage.

The middle and lower Wabash crested at stages 3-10 feet above flood stage. These crests are 1 to 2 feet higher than those recorded during late February 1975. The river crest reached Carmel on the morning of the 27th and was falling at all reporting points by the end of the month.
The upper White River also crested 2 to 3 feet above flood stage. The middle and lower reaches crested 3 - 6 feet above flood stage. These values are 1 - 2 feet lower than those of late February last year. The river was falling at the end of the month, but the lower reach remained above flood stage.
Extensive lowland flooding occurred along the flood plains of the Wabash and White Rivers from the middle through the end of the month. Some secondary and a few state roads were closed. The Soil Conservation Service reported secondary road damabe in Fountain, Warren, and Vermillion counties along the middle Wabash. They also reported some winter wheat destroyed along the lower Wabash in Gibson County.

Tabulated below are preliminary estimates of losses provided by the Corps of Engineers.

Stream	Acres Inundated	Estimated Damage
Wabash River		
Wildcat Creek to White River	122,000	$2,353,000
Raccoon Creek		
Mansfield Dam to Wabash River	50	1,000
Embarras River		
Mile 63.8 to Wabash River	13,000	178,000
Eel River		
Mill Creek to White River	12,000	34,000
White River		
Muncie, Ind. to Wabash River	55,000	2,016,000
East Fork White River		
Columbus, Ind. to White River	13,600	118,000
Total	215,650	$4,700,000

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FEBRUARY 1976

Basin and Streams	FLOOD EVENT	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)
	OHIO BASIN-Cont'd		
Tennessee River Basin	The failure of the dam which formed Bearwallow Lake on Newfound Creek in the French Broad River Basin in the headwaters of the Tennessee River drowned four members of the Ledbetter family on the 22d. It is believed that the dam of earth and rock fill became waterlogged with seepage and collapsed of its own weight. The area of the lake was about three acres with depths of up to 30 feet. About 25 to 30 acre-feet of water were released. Damage extended about 5 miles downstream with depths of flow of 10 to 15 feet indicated. Losses include 6 homes, 3 trailers, 13 farm buildings, 4 cars, 2 tractors, 2 trucks, a community park, some livestock and extensive loss of topsoil from the several small farms affected. The drop in elevation for 0.8 mile below the dam is about 880 feet.	4	200
Ohio River Main Stem	On the upper Ohio rapid melting of a heavy snowpack combined with rainfall of up to 2.5 inches produced heavy runoff from the Allegheny River and tributaries in Eastern Ohio as discussed above. The Ohio approached flood stage from Hannibal Locks to Point Pleasant, WV, and exceeded flood stage by 0.7 foot at Racine Locks, WV. On the lower Ohio the high flows from upstream combined with heavy runoff from tributaries in western Ohio and Kentucky and the Wabash Basin to cause flooding at most points from Carrelton down to the mouth. The maximum flooding of 12 feet occurred at Fords Ferry, KY. Flooding continued into March at and below Newburgh, IN.	0	N/A
	WHITE BASIN		
Cache River	Flooding continued from January around Patterson, AR, with the crest 1.2 feet over flood stage on the 1st and ended on the 14th. The storm of the 17th-18th deposited rains of about 1.5 inches over the basin and resulted in renewed flooding which extended into March with a crest 1.9 feet over flood stage on the 25th. This seasonal type of flooding is normal for this river and occurred this year even tho rainfall was below normal for the last two months. Considerable farmland was inundated at these stages.	0	N/A
	ARKANSAS BASIN		
	Precipitation was generally well below normal over the basin and no flooding was reported.	0	0
	LOWER MISSISSIPPI BASIN		
St. Francis and Big Black Rivers	Lowland flooding continued along the Big Black River early in February from the rains of late January. The storm of the 17th-18th with amounts of 1.5 inches or more caused flooding on the St. Francis River with a crest 2.5 feet over flood stage at St. Francis, AR, on the 19th. This storm also caused flooding on the upper Big Black River, which crested 3.3 feet over flood stage at West, MS, on the 22d as a result of additional rains of an inch	0	N/A

Basin and Streams	FLOOD EVENT	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)
	LOWER MISSISSIPPI BASIN-Cont'd		
	or so on the 21st-22d.		
	WEST GULF OF MEXICO DRAINAGE		
Calcasieu River	The storms of the 17th-18th and 21st-22d caused a few days of minor flooding on the upper Calcasieu River with a crest 1.3 feet over flood stage at Hineston, LA, on the 25th.	0	N/A
	GULF OF CALIFORNIA DRAINAGE		
Lower Colorado River Basin	Flash flooding was reported in northern and western Mohave County on the 5th between Kingman and Bullhead City, AZ. Rains of 2 to over 4 inches on the 9th-10th caused some flooding on several streams in Arizona. Snowmelt was a factor at the higher elevations. Streams affected include the Big Sandy and Verde Rivers and Oak and Tonto Creeks. No stage reports are available. Damage was light. Stages on the Big Sandy River were reported to be the highest since 1939. However, this is a very sparsely populated atea.	0	N/A
	PACIFIC SLOPE DRAINAGE		
Lower California Streams	Heavy rains on the 4th-10th ended the near record drought in southern California. Totals for the period include 3.7 inches in downtown Los Angeles, 2.2 inches at the Los Angeles Airport, 5.4 inches in San Diego and nearly 9 inches at Lake Arrowhead. The San Diego River flooded shopping centers in the Mission Valley area on several occasions during this period.	0	N/A
Northern California Streams	Above normal rainfall with moderate to heavy rains the middle of February and the last week of the month caused warning stages to be exceeded on the Smith and Eel Rivers. However, no flooding was reported.	0	0
North Coastal and Willamette Basin Streams in Oregon	Precipitation occurred almost daily over this area after the 11th. Heavy rains on the 16th-17th totaled 4.8 inches at Nehalem 9NE and caused light flooding on the Wilson River with damage estimated at $4,600 by the Corp of Engineers. A second storm on the 25th-27th caused rainfall of 4 to 5.5 inches over the central Coast Range and about 4 inches over the central Cascades with flooding on several streams in the Willamette Basin. The Pudding River crested 2.5 feet over flood stage at Aurora and Johnson Creek 1.6 feet over flood stage at Sycamore. Nearly a foot of flooding occurred along the South Yamhill River. Damage in the Willamette Basin was estimated at $124,100 by the Corps of Engineers.	0	129
	HAWAII		
Oahu	Serious flash flooding occurred on the 7th-8th in the Haleiwa-Waialua and Makaha-Waianae areas of Oahu with 500 people evacuated. There were no fatalities. During the 48-hour period 2 a.m. on the 6th to 2 a.m. on the 8th Makaha Valley received 19.85 inches of rain and Waialua 17.72 inches. The U. S. Geological Survey reported record peak discharges on most streams on the leeward side of the island. A small private reservoir of 1.5 million gallon	0	274

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FLOOD EVENT — FEBRUARY 1976

Basin and Streams	HAWAII-Cont'd	Lost Lives	Preliminary Estimate of Property Damage (thousands of dollars)
	capacity in the Makaha Valley threatened to rupture and was pumped into an adjacent reservior as a precautionary measure. Public damage to roads and a bridge amounted to $55,000. Private damage of $219,000 included 86 homes with light to moderate damage and 3 with severe damage, 13 vehicles, 5 stores, 1 small boat, and 3 head of livestock lost.		

FLOOD STAGE DATA

River and station	Flood stage	Above flood stages - dates		Crest	
		From	To	Stage	Date
ST. LAWRENCE DRAINAGE					
[illegible]					
[illegible], N					
[illegible]					
White Pigeon, MI				4.01	
				4.00	
St. Joseph River:					
Burlington, MI					
Flat:					
[illegible], MI					
[illegible]					
Hastings, MI					
Caledonia				8.57	
Rogue River:					
Rockford, MI					
Red Cedar River:					
[illegible], MI				7.96	
[illegible], MI				7.0	
				7.3	
Grand:					
Comstock Park, MI				12.4	
				13.4	
Shiawassee River:					
Owosso, MI				7.4	
				8.0	
Flint River:					
[illegible], MI					
Saginaw:					
Saginaw, MI				19.80	
				19.09	
Clinton River:					
Fraser, MI					
Mt. Clemens, MI				13.2	
				13.45	
Middle River Rouge:					
Garden City, MI					
Lower River Rouge:					
Inkster, MI					
Huron River:					
Ann Arbor, MI				15.0	
Saline River:					
[illegible], MI					
Raisin River:					
[illegible], MI				13.26	
[illegible], MI				9.49	
St. Marys:					
Decater, IN					
St. Josephs:					
Montpelier, OH					
Tiffin:					
Stryker, OH					
Maumee:					
[illegible], IN				16.6	
Defiance, OH					
Napoleon, OH				12.3	
[illegible], OH				17.6	

River and station	Flood stage	Above flood stages - dates		Crest	
		From	To	Stage	Date
ST. LAWRENCE DRAINAGE (Cont'd)					
[illegible]					
Upper Sandusky, OH					
Tiffin, OH				8.2	
Fremont, OH				10.6	
[illegible]					
Vermilion, OH					
Cuyahoga:					
Old Portage, OH				10.3	
[illegible], OH				20.7	
Buffalo Creek:					
Gardenville, NY					
				15.1	
[illegible]					
Lancaster, NY				8.65	
				9.1	
Oatka:					
[illegible], NY					
Black:					
[illegible], NY					
Genesee:					
Wellsville, NY				10.6	
Portageville, NY				20.0	
ATLANTIC SLOPE DRAINAGE					
Charles:					
[illegible], MA					
Connecticut:					
[illegible], NH					
				18.3	
				18.1	
Housatonic:					
Stevenson, CT					
Schoharie Creek:					
Prattsville, NY					
Mohawk:					
[illegible], NY					
Willis:					
Gardiner, NY					
[illegible]					
Whitney Point, NY					
Chenango:					
Sherbourne, NY					
Chemung:					
Elmira, NY				12.0	
Chemung, NY				17.1	
[illegible]					
Bainbridge, NY				14.35	
[illegible], NY				13.94	
				12.48	
[illegible]					
				19.38	
				18.35	
Roanoke:					
Williamston, NC					
Tar:					
Tarboro, NC					
Greenville, NC					
Neuse:					
Smithfield, NC					
Goldsboro, NC					

FLOOD STAGE DATA

(All dates in February unless otherwise specified)

River and station	Flood stage	Above flood stages --dates From		To		Crest Stage		Date	
	Ft					Ft			
ATLANTIC SLOPE DRAINAGE (cont'd)									
Neuse: (Cont'd)									
Wilson, NC	11	Jan	31	12		#16.04		7	
Cape Fear									
Huske L&D, NC	12		3	5		11.1		3	
Elizabethtown, NC	20	Jan	31	1		23.0	Jan	30	
			4	5		22.6		4	
Lumber									
Lumberton, NC	9	Jan	27	17		#11.4		3	
Little Pee Dee:									
Galivants Ferry, SC	9		6	15		9.9		4	
Pee Dee:									
Peedee, SC	19		6	7		19.4		6	
Edisto:									
Givhans Ferry, SC	10		4	8		10.2		5	
Savannah:									
Clyo, GA	11		1	17		#12.8		7	
GAS. GULF OF MEXICO DRAINAGE									
Apalachicola									
Blountstown, FL	15	Jan	28	8		19.01		1	
Choctawhatchee:									
Caryville, FL	12	Jan	30	2		E12.5	Jan	31	
Old Town Creek:									
Tupelo, MS	21		4	6		21.1		5	
East Fork Tombigbee:									
Fulton, MS	16		19	24		17.2		19	
Tombigbee:									
Amory, MS	20		6	8		21.5		7	
			18	20		22.3		19	
			21	23		22.0		22	
Coffeeville L&D, AL	43	Jan	29	2		46.6	Jan	30	
Pearl:									
Jackson, MS	18	Jan	29	5		21.4		2	
			24	28		19.4		25	
Bogalusa, LA	15	Jan	28	11		16.5	Jan	29	
						17.04		4	
Pearl River, LA	12		1	7		12.32		6	
UPPER MISSISSIPPI BASIN									
Kickapoo:									
Steuben, WI	8		28	31		8.10		29	
East Branch Pecatonica River:									
Blanchardville, WI	12		28	28		17.2		28	
Pecatonica River:									
Martintown, WI	11		27	29		11.4		29	
Vermilion River:									
Leonore, IL	13		13	13		#10.05		13	
Illinois River									
Marseilles, IL	13		21	24		15.50		22	
La Salle, IL	20		19	27		22.50		23	
Peoria, IL	18		25	28		18.4		26	
Havana, IL	13		21	1/		16.2		27	
Beardstown, IL	14		2	1/		16.6		29	
Meredosia, IL	11		25	27		0		1	
OHIO BASIN									
Conewango Creek:									
Russell, PA	8		18	21		13.17		22	
French Creek:									
Meadville, PA	13		18	18		13.5		18	

River and station	Flood stage	Above flood stages --dates From		To		Crest Stage		Date	
	Ft					Ft.			
OHIO BASIN (Cont'd)									
Clarion:									
Ridgeway, PA	11		17		19	13.6		17	
Cooksburg, PA	11		17		18	12.6		17	
Allegheny									
Eldred, PA	17		18		21	18.2		19	
Olean, NY	10		17		23	14.4		19	
Salamanca, NY	14		18		20	14.3		19	
Parker, PA	20		16		17	26.3		17	
Mosgrove, PA (Lock 8)	24		17		0	24.3		17	
Kittanning, PA (Lock 7)	25		17		17	23.1		17	
Freeport, PA (Lock 5)	21		17		20	23.3		17	
Natrona, PA (Lock 4)	20		17		18	21.1		17	
Acmetonia, PA (Lock 3)	20		17		18	20.6		17	
Mahoning:									
Warren, OH	10		17		18	11.4		18	
Youngstown, OH	10		17		19	13.8		18	
Killbuck Creek:									
Killbuck, OH	16		19		19	16.0		19	
Hocking:									
Enterprise, OH	12		18		19	12.6		19	
Scioto:									
La Rue, OH	11		11		12	11.3		11	
			17		19	12.2		18	
Prospect, OH	10		18		21	12.7		19	
Circleville, OH	14		18		21	19.1		19	
Piketon, OH	16		18		24	20.9		19	
Little Miami:									
Milford, OH	12		18		18	12.4		18	
Ohio Brush Creek:									
West Union, OH	15		18		18	19.8		18	
Brashears Creek:									
Taylorsville, KY	20		18		19	26.85		18	
Rolling Fork:									
Boston, KY	35		19		22	#45.0		20	
Rough:									
Dundee, KY	25		18		20	28.35		19	
Green:									
Brownsville, KY	18		20		20	#18.2		20	
Woodbury, KY (Lower)	35		19		21	#35.10		21	
Rochester, KY (Lower)	33		19		23	#34.40		22	
Livermore, KY	20		19		28	#22.90		24	
Calhoun, KY (Upper)	25		19	Mar	1	#27.3		25	
Spottsville, KY (Upper)	27		29		29	#33.9		29	
Eagle Creek:									
Zionsville, IN	7		16		17	#11.82		17	
Embarrass:									
Lawrenceville, IL	11		21		27	14.15		23	
East Fork White:									
Seymour, IN	14		19		20	15.1		19	
White:									
Anderson, IN	10		11		12	12.05		11	
			17		19	13.20		18	
Noblesville, IN	14		16		12	#14.6		11	
			17		19	15.6			
Nora, IN	11		17		19	13.8		18	
Ravenswood, IN	6		17		19	E 8.5		18	
Centerton, IN	602MSL		18		20	#604.5		19	
Spencer, IN	14		13		24	18.64		19	

FLOOD STAGE DATA

(All dates in February of WS, otherwise specified)

River and station	Flood stage	Above flood stages –dates		Crest	
		From	To	Stage	Date
	Ft			Ft	
OHIO BASIN (Cont'd)					
White (Cont'd):					
Elliston, IN	18			E22.8	
[illegible]	16			#19.70	
Petersburg, IN	16	Jan	29	#17.21	
				#20.04	
[illegible]	20	Jan	31	#17.5	
Little Wabash:					
[illegible]	20			18.61	
Wabash:					
Bluffton, IN	12			13.10	
				#13.10	
Wabash, IN	12			16.66	
[illegible]	11			16.12	
				18.93	
Covington, IN	16			22.98	
Montezuma, IN	13			24.08	
Clinton, IN	18			E23.9	
[illegible]	13			#20.4	
[illegible]	20			23.0	
[illegible]	18			20.8	
Vincennes, IN	16			#20.70	
[illegible]	17			#22.30	
New Harmony, IN	13			#17.0	
North Fork Holston:					
Racine, WV	33			38.7	
Cannelton Dam (upper)	30			#38.2	
Cannelton Dam (Lower)	47			#43.5	
Tell City, IN	38			#42.3	
[illegible]	30			#27.3	
[illegible]	38			#44.7	
[illegible]	37			#41.2	
[illegible]				#25.3	
Uniontown, KY Dam 49 Lower				#42.9	
[illegible]	33			#43.2	
Fords Ferry, KY Dam 50 Upper	51			#34.1	
				#46.0	
[illegible]	30			#42.7	
Brookport, IL Dam 52 Upper	37			#40.3	
[illegible]	40			#42.0	
[illegible]					
Cache:					
Patterson, AR		Jan	28		
			19		
[illegible]					
St Francis:					
St. Francis, AR	28				
Big Black:					
West, MS	1				
Bovina, MS	8				
WEST GULF OF MEXICO DRAINAGE					
[illegible]					
Hineston, LA	21				
PACIFIC SLOPE DRAINAGE					
Wilson:					
Tillamook, OR	11				

River and station	Flood stage	Above flood stages –dates		Crest	
		From	To	Stage	Date
	Ft			Ft	
S Yamhill:					
Willamina 2S, OR	8	27	27	E 8.8	
Whiteson, OR	38	28	29	38.87	
Pudding					
[illegible]					
Johnson Creek:					
Sycamore, OR	8				

B Flooding continued from previous month - beginning date unknown

RAWINSONDE DATA

Average monthly values

ALBANY, NY — 1004 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	28	86	-3.1	-7.4	24	2.3
1000	20	404	-2.9	-10.0	24	2.3
950	28	526	-3.1	-9.4	24	6.1
900	28	953	-4.5	-10.9	27	11.3
850	28	1,383	-5.6	-11.8	27	14.8
800	28	1,817	-7.0	-14.8	28	16.2
750	28	2,280	-8.5	-17.1	28	17.9
700	28	2,912	-10.8	-18.8	27	20.0
650	28	3,479	-13.7	-22.7	27	22.1
600	28	4,084	-17.0	-27.4	27	24.4
550	28	4,732	-20.9	-31.9	27	25.6
500	28	5,430	-25.7	-34.4	27	27.4
450	28	6,186	-30.9	-38.4	27	29.7
400	28	7,011	-36.9	-43.3	27	31.2
350	28	7,927	-42.5	-48.7	27	32.2
300	28	8,952	-48.1		27	33.1
250	28	10,138	-53.9		28	32.9
200	28	11,565	-54.5		28	32.8
175	28	12,422	-53.5		27	31.3
150	27	13,417	-53.7		27	29.6
125	27	14,585	-55.4		27	29.4
100	27	16,002	-57.7		27	24.9
80	26	17,401	-58.2		27	22.3
70	26	18,243	-57.7		27	21.6
60	25	19,213	-57.8		27	16.8
50	25	20,365	-57.1		27	16.0
40	24	21,777	-57.3		27	13.5
30	23	23,603	-55.6		28	12.7
25	20	24,760	-56.5		28	11.3
20	17	26,185	-55.9		27	6.8
15	12	28,012	-55.9			
10						

ALBUQUERQUE, NM — 839 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	1,619	.6	-6.4	33	.6
1000						
950						
900						
850						
800	29	2,004	4.5	-9.1	27	2.9
750	29	2,527	1.7	-11.3	27	5.8
700	29	3,079	-1.8	-14.5	27	8.4
650	29	3,665	-5.4	-18.2	27	11.0
600	29	4,289	-9.2	-22.1	26	13.2
550	29	4,957	-13.6	-26.8	26	15.8
500	29	5,675	-18.2	-31.3	26	17.9
450	29	6,453	-23.8	-35.8	26	20.6
400	29	7,303	-29.9	-42.2	26	21.0
350	29	8,243	-37.2	-48.1	26	22.9
300	29	9,288	-45.0		26	25.0
250	29	10,486	-52.4		26	27.0
200	29	11,912	-57.4		26	27.6
175	29	12,751	-59.6		26	24.8
150	29	13,717	-59.1		27	22.0
125	29	14,853	-61.8		27	20.6
100	29	16,208	-64.4		27	19.5
80	29	17,588	-64.3		27	13.3
70	29	18,406	-64.3		27	8.8
60	29	19,349	-63.8		28	6.0
50	28	20,472	-61.5		31	3.2
40	24	21,866	-58.9		03	1.9
30	23	23,684	-56.2		06	4.5
25	23	24,847	-55.1		06	6.7
20	21	26,287	-53.6		06	8.5
15	16	28,138	-51.3		07	6.6
10	5	30,844	-45.9			

AMARILLO, TX — 891 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	1,095	2.9	-9.4	28	3.1
1000						
950						
900						
850	29	1,477	7.6	-6.6	27	8.2
800	29	1,876	6.9	-9.3	28	10.5
750	29	2,304	4.3	-13.4	27	11.6
700	29	3,061	.4	-17.2	27	12.7
650	29	3,651	-3.5	-20.8	27	13.2
600	29	4,279	-7.5	-24.1	27	14.8
550	29	4,951	-12.2	-27.9	27	15.4
500	29	5,672	-17.6	-31.0	27	16.7
450	29	6,452	-23.2	-34.9	27	18.4
400	29	7,303	-29.9	-39.8	27	19.7
350	29	8,243	-37.3	-45.3	27	22.1
300	29	9,287	-45.2		27	25.4
250	29	10,482	-53.3		27	29.6
200	29	11,902	-58.2		27	32.6
175	29	12,738	-60.2		27	29.3
150	29	13,699	-60.6		27	25.9
125	29	14,830	-62.5		27	24.6
100	28	16,208	-64.3		27	20.6
80	28	17,566	-65.9		28	15.1
70	28	18,379	-65.2		28	11.5
60	27	19,318	-64.3		29	7.6
50	26	20,441	-62.5		30	4.4
40	24	21,825	-60.0		34	2.3
30	21	23,651	-56.8		05	4.3
25	21	24,809	-55.9		05	5.1
20	20	26,231	-54.6		05	5.7
15	15	28,099	-52.8		06	6.9
10	7	30,773	-48.1			

* ANCHORAGE, AK — 1003 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	28	45	-10.4	-16.4	03	1.4
1000	13	157	-8.0	-15.2	08	1.8
950	28	468	-8.7	-16.8	06	2.5
900	28	887	-9.1	-17.2	09	1.6
850	28	1,328	-10.7	-18.9	12	0.0
800	28	1,792	-12.7	-21.2	19	1.7
750	28	2,283	-15.3	-24.9	21	3.3
700	28	2,801	-18.4	-28.1	21	4.5
650	28	3,350	-21.9	-31.4	21	4.8
600	28	3,935	-25.6	-35.1	21	4.6
550	28	4,560	-29.7	-39.2	22	4.7
500	28	5,234	-34.4	-42.7	23	5.4
450	28	5,963	-39.4	-42.2	23	5.3
400	28	6,760	-44.8	-42.2	25	5.8
350	28	7,644	-50.6		25	7.3
300	28	8,637	-54.5		25	9.2
250	28	9,804	-54.0		26	13.0
200	28	11,226	-51.9		26	15.3
175	27	12,094	-50.6		27	17.0
150	27	13,100	-50.1		27	18.0
125	27	14,292	-50.2		27	20.0
100	27	15,748	-50.6		27	21.9
80	26	17,201	-51.0		27	22.4
70	26	18,061	-50.5		27	23.9
60	25	19,066	-50.6		28	23.6
50	24	20,265	-50.3		28	23.5
40	24	21,721	-50.5		28	22.9
30	23	23,624	-49.3		28	24.3
25	20	24,819	-49.2		28	25.8
20	17	26,259	-49.2		28	27.0
15	12	28,172	-46.5		28	32.6
10	8	30,966	-43.1			

* ANNETTE, AK — 1004 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	37	1.1	-2.6	15	1.9
1000	18	138	.9	-5.0		
950	29	481	-1.0	-6.0	15	4.9
900	29	910	-3.5	-9.1	17	5.5
850	29	1,360	-6.0	-12.2	18	5.9
800	29	1,833	-8.5	-15.0	19	6.2
750	29	2,331	-11.0	-19.9	20	6.3
700	29	2,856	-12.6	-24.1	20	7.0
650	29	3,412	-18.7	-27.8	21	7.7
600	29	4,004	-22.9	-30.9	21	8.1
550	29	4,630	-26.7	-35.0	21	9.0
500	29	5,320	-31.9	-37.4	22	10.1
450	29	6,057	-36.9	-39.9	22	8.9
400	28	6,862	-42.8	-40.2		
350	28	7,756	-48.8			
300	28	8,759	-52.8			
250	28	9,932	-54.6			
200	28	11,367	-52.9			
175	27	12,222	-51.3			
150	27	13,225	-50.5			
125	27	14,414	-51.1			
100	27	15,862	-52.2			

ATHENS, GA — 991 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	246	5.8	1.7	26	1.6
1000						
950	29	594	9.4	.7	26	6.4
900	29	1,041	7.6	-2.6	26	8.0
850	29	1,510	5.7	-7.3	27	9.1
800	29	2,005	4.2	-12.1	27	11.3
750	29	2,528	2.2	-16.4	27	13.7
700	29	3,082	-.9	-18.5	27	14.8
650	29	3,669	-4.3	-21.0	28	16.8
600	29	4,295	-8.3	-23.9	28	18.1
550	29	4,966	-12.5	-28.0	27	20.4
500	29	5,686	-17.8	-31.1	27	22.3
450	29	6,466	-23.4	-35.7	27	23.7
400	28	7,312	-30.2	-41.5	27	25.6
350	28	8,251	-37.4	-46.0	27	28.3
300	28	9,295	-45.5		27	32.0
250	28	10,489	-53.6		27	34.7
200	28	11,934	-58.4		27	36.3
175	28	12,742	-59.1		27	35.0
150	28	13,706	-60.2		27	32.2
125	28	14,837	-62.8		27	29.9
100	28	16,202	-65.5		27	23.6
80	28	17,554	-66.5		27	16.7
70	28	18,364	-65.8		27	13.4
60	28	19,304	-64.6		28	9.2
50	28	20,423	-62.4		28	6.0
40	26	21,810	-59.8		30	3.0
30	25	23,625	-57.1		01	2.9
25	25	24,783	-55.6		02	2.7
20	24	26,212	-53.5		03	2.6
15	22	28,069	-51.8		32	2.5
10	11	30,683	-47.0			
7						

* BARROW, AK — 1020 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	28	[illegible]	-30.6	-36.4	34	.4
1000	28	149	-26.2	-29.5	05	.5
950	28	523	-20.9	-24.1	06	1.6
900	28	925	-19.1	-23.3	06	1.6
850	28	1,351	-18.5	-23.2	05	1.6
800	28	1,803	-18.9	-25.1	05	1.5
750	28	2,282	-20.8	-27.4	05	1.7
700	28	2,790	-23.1	-29.1	06	1.3
650	28	3,330	-26.0	-32.0	04	1.6
600	28	3,905	-29.5	-35.5	05	1.5
550	28	4,521	-33.7	-39.1	06	1.6
500	28	5,183	-38.3	-42.4	05	1.9
450	28	5,901	-42.9		05	2.3
400	28	6,685	-48.1		02	1.9
350	28	7,558	-53.5		35	1.7
300	28	8,535	-58.7		32	2.6
250	28	9,670	-62.1		30	4.1
200	28	11,052	-61.0		28	7.4
175	28	11,884	-60.0		27	10.2
150	28	12,856	-59.7		27	12.8
125	28	14,002	-60.5		27	16.3
100	28	15,407	-60.5		27	22.5
80	28	16,781	-60.4		28	26.2
70	28	17,568	-59.4		27	29.5
60	28	18,581	-58.2		28	32.8
50	28	19,703	-56.9		27	36.3
40	26	21,245	-54.9			
30	25	23,173	-54.0			
25						
20						
15						
10						
7						

BARTER ISLAND, AK — 1019 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	27	15	-30.9	-31.4	27	3.4
1000	27	149	-25.1	-27.9	27	2.7
950	27	526	-20.4	-25.7	27	3.8
900	27	927	-19.3	-24.8	28	3.2
850	27	1,352	-19.2	-25.4	29	2.5
800	27	1,803	-20.3	-26.7	31	2.1
750	27	2,279	-21.8	-27.9	32	1.7
700	27	2,785	-24.3	-31.0	34	2.4
650	27	3,323	-26.8	-35.2	34	3.0
600	27	3,896	-30.2	-37.3	34	3.2
550	27	4,510	-33.9	-39.9	34	3.8
500	27	5,172	-38.4	-42.4	34	4.2
450	27	5,889	-42.9		33	4.7
400	27	6,675	-47.9		31	6.3
350	27	7,549	-52.6		31	7.4
300	27	8,531	-57.6		32	7.2
250	27	9,675	-59.7		31	10.0
200	27	11,071	-58.7		30	10.8
175	27	11,913	-57.4		29	13.2
150	27	12,887	-57.7		29	15.7
125	27	14,037	-58.2		29	20.0
100	27	15,441	-58.4		28	24.7
80	27	16,845	-58.2		28	29.7
70	27	17,727	-57.3		28	33.7
60	24	18,704	-56.4		28	37.4
50	24	19,864	-55.6		28	41.7
40	24	21,285	-55.5		28	45.9
30	21	23,126	-54.5		28	53.3
25	21	24,296	-54.1		28	58.4
20	19	25,768	-52.4		27	58.8
15	11	27,668	-50.5			
10						
7						

BETHEL, AK — 1006 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	39	-22.5	-26.4	01	4.5
1000	20	122	-17.5	-20.9	03	3.6
950	29	471	-12.9	-17.9	04	3.0
900	29	885	-12.0	-17.9	05	1.3
850	29	1,322	-13.2	-18.2	07	1.0
800	29	1,783	-15.0	-22.0	05	1.0
750	29	2,268	-17.5	-25.9	05	1.0
700	29	2,782	-20.2	-30.1	17	.6
650	29	3,328	-23.5	-31.8	18	1.3
600	29	3,909	-26.8	-35.3	18	1.5
550	29	4,533	-30.2	-38.9	17	1.9
500	29	5,205	-34.1	-43.0	19	2.5
450	29	5,937	-38.9	-44.4	21	3.6
400	29	6,739	-44.2		22	3.6
350	29	7,624	-49.8		23	4.5
300	29	8,620	-54.0		24	5.4
250	29	9,791	-53.1		24	6.3
200	29	11,237	-50.6		25	8.9
175	29	12,109	-49.7		25	9.0
150	29	13,119	-49.8		25	10.8
125	29	14,313	-49.3		25	12.4
100	29	15,776	-49.7		26	13.3
80	29	17,237	-49.9		26	13.4
70	29	18,111	-49.6		26	14.3
60	29	19,130	-49.2		26	13.7
50	29	20,326	-49.2		26	14.3
40	29	21,796	-48.9		26	15.0
30	28	23,690	-48.1		27	15.7
25	28	24,892	-48.2		26	13.8
20	26	26,367	-48.2		26	15.0
15	18	28,306	-46.8		26	14.8
10						
7						

* BISMARCK, ND — 954 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	503	-5.2	-7.7	28	1.0
1000						
950	18	571	-7.4	-11.1	33	1.0
900	29	950	-9.7	-10.2	30	6.6
850	29	1,402	-3.3	-13.2	30	9.8
800	29	1,881	-5.1	-15.3	30	11.7
750	29	2,383	-8.0	-17.2	30	12.8
700	29	2,918	-11.3	-19.6	30	14.1
650	29	3,483	-14.0	-23.3	30	15.9
600	29	4,085	-18.1	-27.5	30	18.8
550	29	4,730	-22.2	-30.5	29	21.2
500	29	5,423	-27.0	-35.3	29	23.5
450	29	6,175	-32.3	-40.5	29	25.6
400	29	6,995	-38.0	-44.7	29	28.3
350	29	7,904	-43.6		28	30.5
300	29	8,918	-51.4		29	31.6
250	29	10,092	-54.9		29	30.4
200	29	11,510	-54.7		28	29.3
175	29	12,373	-53.3		28	29.1
150	29	13,367	-52.7		28	27.4
125	29	14,543	-53.6		28	26.0
100	29	15,971	-53.4		28	22.8
80	29	17,488	-50.7		29	19.8
70	29	18,233	-50.4		29	17.4
60	29	19,215	-50.2		29	16.1
50	29	20,374	-50.9		29	14.3
40	29	21,800	-53.0		30	14.0
30	29	23,637	-54.9		31	12.7
25	29	24,803	-54.8		32	12.2
20	28	26,281	-52.9		33	12.6
15	23	28,135	-51.9		34	14.8
10	7	30,801	-51.6			
7						

BOISE, ID — 917 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	871	-1.5	-5.4	13	2.0
1000						
950						
900	29	1,020	.0	-5.8	14	1.9
850	29	1,477	-.7	-7.9	20	2.1
800	29	1,961	-2.2	-9.8	25	4.3
750	29	2,472	-4.5	-12.1	26	7.4
700	29	3,012	-7.4	-15.4	26	9.4
650	29	3,586	-10.8	-20.0	27	11.4
600	29	4,197	-14.6	-24.0	27	13.0
550	29	4,850	-19.0	-29.8	27	14.9
500	29	5,553	-23.7	-34.6	27	16.9
450	29	6,315	-29.0	-38.6	27	18.3
400	29	7,147	-35.0	-41.5	27	19.6
350	29	8,068	-41.8	-46.6	28	20.9
300	29	9,094	-49.1		28	23.2
250	29	10,272	-55.3		28	26.0
200	29	11,688	-56.2		28	23.3
175	29	12,539	-55.0		28	21.1
150	29	13,524	-54.8		28	20.4
125	29	14,687	-56.3		28	18.7
100	29	16,098	-58.0		28	14.4
80	29	17,504	-58.4		28	11.6
70	29	18,344	-58.5		29	10.2
60	29	19,315	-57.8		30	7.8
50	29	20,469	-56.3		31	5.7
40	28	21,887	-55.6		33	4.8
30	25	23,725	-54.7		36	5.3
25	24	24,888	-54.2		01	7.0
20	23	26,331	-53.0		02	8.2
15	16	28,224	-51.8		04	8.7
10	7	30,904	-47.5			

BROWNSVILLE, TX — 1018 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	7	14.8	11.3	16	2.0
1000	29	157	17.2	12.4	16	4.6
950	29	594	15.1	9.1	17	8.4
900	29	1,051	14.5	.1	18	7.4
850	29	1,533	13.6	-5.3	18	4.9
800	29	2,042	11.4	-8.4	18	3.2
750	29	2,578	9.2	-11.8	22	1.7
700	29	3,146	5.8	-14.5	26	2.9
650	29	3,748	1.9	-16.7	28	4.4
600	29	4,388	-3.4	-20.8	28	6.3
550	29	5,072	-7.1	-24.9	27	7.3
500	29	5,808	-12.3	-29.0	26	9.6
450	29	6,604	-18.2	-34.4	25	12.1
400	29	7,472	-25.2	-39.5	26	13.9
350	29	8,430	-32.6	-45.9	26	16.3
300	29	9,493	-41.3	-52.5	26	18.4
250	29	10,706	-50.9		26	22.7
200	29	12,130	-58.5		26	27.5
175	29	12,966	-59.9		25	27.8
150	29	13,924	-62.3		26	26.6
125	29	15,038	-67.4		26	22.0
100	29	16,368	-70.9		25	15.4
80	28	17,679	-72.2		26	10.8
70	28	18,467	-71.4		27	7.7
60	26	19,380	-69.7		27	4.3
50	25	20,479	-64.9		01	.9
40	24	21,854	-61.2		05	2.5
30	22	23,659	-57.2		06	4.0
25	21	24,820	-55.1		06	3.7
20	21	26,255	-52.1		07	4.1
15	18	28,152	-47.5		07	1.5
10	7	30,863	-40.7			

BUFFALO, NY — 987 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	218	-1.0	-4.8	24	4.9
1000						
950						
900	29	522	-2.1	-6.9	25	9.7
850	29	950	-4.0	-8.1	26	13.1
800	29	1,400	-5.9	-12.2	27	14.1
750	29	1,873	-7.7	-16.2	27	15.8
700	29	2,374	-9.6	-18.6	27	19.0
650	29	2,905	-11.5	-22.3	27	22.0
600	29	3,470	-14.2	-25.6	27	23.9
550	29	4,074	-17.3	-29.4	27	25.7
500	29	4,722	-21.3	-31.4	27	26.0
450	29	5,418	-25.7	-34.9	27	27.5
400	29	6,175	-30.7	-38.4	28	28.9
350	29	7,001	-36.4	-43.9	28	29.6
300	29	7,918	-42.5		28	30.8
250	29	8,941	-49.1		28	32.2
200	29	10,124	-54.0		27	32.5
175	29	10,832	-54.1		28	32.1
150	29	11,552	-54.1		28	32.1
125	29	12,411	-53.3		28	32.1
100	29	13,402	-53.9		28	28.9
80	29	14,571	-55.4		28	24.3
70	29	15,282	-56.9		28	21.1
60	29	17,389	-58.5		28	16.4
50	29	18,467	-57.7		28	14.6
40	29	19,701	-57.4		28	16.0
30	29	21,201	-57.4		28	11.1
25	29	22,264	-56.3		30	6.9
20	28	23,595	-55.1		30	15.1
15	24	25,190	-55.5		30	14.4
10	11	27,986	-55.0		30	11.5
7						

CAPE HATTERAS, NC — 1020 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	4	8.0	5.5	27	2.1
1000	29	147	11.4	3.0	26	4.8
950	29	595	9.3	-.9	26	9.0
900	29	1,041	6.7	-4.9	27	10.2
850	29	1,508	4.4	-10.0	27	11.2
800	29	2,001	2.0	-14.3	26	12.5
750	29	2,520	.1	-15.8	26	14.1
700	29	3,070	-2.7	-19.2	26	16.3
650	29	3,654	-5.9	-21.1	26	18.9
600	29	4,277	-9.8	-24.3	26	20.7
550	29	4,944	-14.0	-28.2	27	23.6
500	29	5,660	-18.9	-31.4	27	23.7
450	29	6,438	-23.8	-35.9	27	26.0
400	29	7,287	-30.2	-41.1	27	29.3
350	29	8,227	-37.2	-46.2	27	31.5
300	29	9,271	-45.3		27	31.1
250	29	10,488	-53.4		28	32.9
200	29	11,885	-57.0		28	34.4
175	29	12,734	-57.5		28	32.9
150	29	13,707	-58.3		27	32.1
125	29	14,839

RAWINSONDE DATA

Average monthly values

CARIBOU, ME
986 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	29	141	-12.4	-16.9	26	1.3
1000	29	191	-11.9	-14.9	26	1.3
950	29	488	-11.3	-14.2	26	4.5
900	29	863	-11.7	-14.9	26	6.6
850	29	1,331	-12.1	-17.0	27	8.6
800	29	1,794	-13.1	-18.6	27	10.8
750	29	2,258	-14.4	-19.3	27	13.1
700	29	2,728	-16.4	-21.8	27	14.0
650	29	3,203	-18.7	-23.8	27	17.9
600	29	3,685	-21.4	-26.9	27	19.9
550	29	4,182	-25.1	-30.8	27	22.8
500	29	5,679	-29.5	-35.6	27	25.2
450	29	6,223	-34.6	-39.2	27	27.4
400	29	6,836	-40.5	-42.2	27	29.1
350	29	7,737	-46.0		27	31.6
300	29	8,748	-51.3		27	37.1
250	29	9,965	-53.6		27	37.9
200	29	11,362	-57.6		27	35.9
175	29	12,228	-51.6		27	33.2
150	27	13,231	-52.2		27	32.9
125	27	14,441	-49.9		27	31.9
100	27	15,844	-54.6		27	29.3
80	27	17,272	-55.2		27	28.0
70	27	18,126	-55.4		27	24.6
60	27	19,118	-55.4		27	23.0
50	26	20,272	-56.1		27	20.7
40	25	21,688	-55.8		27	20.2
30	25	23,524	-55.5		27	17.3
25	24	24,696	-54.6		27	17.1
20	18	26,169	-55.1		27	16.1
15	17	27,969	-54.6		27	18.3
10	13	30,083	-50.9		27	22.3
7						

CENTREVILLE, AL
1,005 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	29	14	7.8	4.0	00	.6
1000	29	191	8.9	3.4	16	1.3
950	29	496	7.1	1.6	16	4.9
900	29	863	7.7	-1.4	16	6.7
850	29	1,254	6.8	-4.1	16	8.7
800	29	1,658	5.5	-11.2	16	11.2
750	29	2,067	3.2	-13.8	16	12.3
700	29	2,483	.4	-16.7	16	13.1
650	29	2,906	-2.3	-19.7	17	14.8
600	29	3,333	-7.2	-22.7	17	16.8
550	29	3,995	-11.5	-27.7	17	18.5
500	29	5,718	-16.7	-31.5	17	21.1
450	28	6,535	-22.5	-36.0	17	23.2
400	28	7,358	-29.0	-41.6	17	24.8
350	28	8,302	-36.1	-47.2	17	27.4
300	28	9,351	-44.4		17	30.2
250	28	10,549	-53.0		17	32.3
200	28	11,967	-58.1		17	34.9
175	28	12,826	-59.4		17	35.1
150	28	13,768	-60.5		17	30.2
125	27	14,846	-63.6		17	28.6
100	27	16,254	-66.9		17	22.0
80	27	17,598	-67.5		17	15.4
70	27	18,404	-66.9		18	12.0
60	27	19,338	-65.7		19	8.0
50	26	20,449	-63.5		18	4.3
40	25	21,881	-60.4		12	.9
30	25	23,624	-57.5		02	2.7
25	24	24,796	-55.7		05	3.2
20	22	26,224	-53.7		03	2.4
15	21	28,088	-50.7		03	2.6
10	13	30,766	-45.7		28	6.0
7	5	33,214	-40.9			

CHARLESTON, SC
1,000 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	29	13	8.2	4.3	26	.9
1000	29	177	12.3	4.7	29	2.7
950	29	607	11.5	4.9	26	6.1
900	29	1,057	8.7	-.7	26	7.2
850	29	1,528	7.0	-7.7	27	8.5
800	29	2,025	5.1	-10.5	27	8.9
750	29	2,549	2.4	-15.5	27	11.1
700	29	3,105	.6	-18.7	27	13.0
650	29	3,695	-3.2	-20.8	27	15.1
600	29	4,323	-7.1	-23.2	27	17.1
550	29	4,996	-11.4	-27.2	27	18.8
500	29	5,720	-16.5	-31.5	27	21.1
450	29	6,504	-22.1	-35.5	27	23.4
400	28	7,361	-28.8	-40.7	27	25.7
350	28	8,306	-35.8	-45.6	27	27.2
300	28	9,356	-44.2		28	28.0
250	28	10,555	-52.6		28	32.8
200	28	11,977	-58.1		27	34.9
175	28	12,817	-58.4		27	35.2
150	28	13,784	-60.1		27	31.2
125	27	14,909	-62.9		27	28.8
100	27	16,274	-65.8		27	23.2
80	27	17,621	-67.5		27	17.2
70	27	18,429	-66.6		28	14.1
60	27	19,365	-65.2		28	9.5
50	27	20,483	-61.6		29	6.0
40	25	21,873	-59.8		29	2.9
30	25	23,686	-56.7		35	3.0
25	24	24,853	-55.2		03	1.1
20	23	26,284	-53.3		36	1.6
15	19	28,156	-50.4		34	1.8

CHATHAM, MA
1,042 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	28	18	.4	-3.	33	3.1
1000	28	138	.7	-5.8	26	3.5
950	28	527	.0	-7.2	26	7.6
900	28	958	-1.8	-10.4	26	10.3
850	28	1,413	-3.3	-13.2	26	12.6
800	28	1,891	-4.5	-15.6	27	15.5
750	28	2,397	-6.7	-17.2	27	17.9
700	28	2,933	-9.4	-19.3	27	19.9
650	28	3,503	-12.6	-22.	27	22.1
600	28	4,111	-15.8	-25.7	27	24.3
550	28	4,762	-20.0	-30.1	27	26.9
500	28	5,462	-24.8	-34.7	26	28.9
450	28	6,220	-29.9	-38.0	27	31.4
400	28	7,049	-35.6	-43.4	27	34.5
350	27	7,980	-41.6	-47.1	27	37.1
300	27	9,008	-48.0		27	39.1
250	25	10,210	-55.0		27	41.2
200	24	11,627	-55.6		27	37.8
175	24	12,482	-54.3		27	35.4
150	24	13,469	-55.1		27	31.5
125	24	14,631	-56.9		27	29.0
100	24	16,038	-58.8		27	25.0
80	24	17,438	-59.0		27	20.6
70	24	18,277	-58.6		27	17.6
60	24	19,248	-57.8		27	15.1
50	24	20,397	-58.0		27	12.6
40	23	21,805	-56.6		27	11.2
30	22	23,639	-55.6		28	9.2
25	19	24,816	-54.6		28	7.8
20	18	26,235	-54.4		29	7.4
15	16	28,081	-53.6		30	7.1

[illegible] BAY, AK
1,024 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	27	30	-3.8	-1.8	27	.6
1000	27	107	-5.6	-4.4	33	.9
950	27	440	-5.6	-8.4	27	.6
900	27	869	-7.6	-11.6	28	.8
850	27	1,314	-8.8	-14.7	22	.8
800	27	1,786	-10.9	-17.4	23	3.1
750	27	2,278	-13.0	-20.4	24	4.8
700	27	2,797	-17.1	-23.4	24	5.5
650	27	3,349	-20.0	-27.4	24	6.4
600	27	3,937	-24.0	-31.3	24	7.0
550	27	4,568	-28.1	-35.4	24	8.8
500	27	5,244	-32.0	-39.0	24	9.8
450	27	5,979	-37.3	-44.4	25	11.6
400	27	6,783	-42.7	-48.5	25	12.3
350	24	7,683	-47.6		25	13.6
300	24	8,689	-53.0		25	16.8
250	24	9,825	-50.6		25	18.7
200	24	11,342	-47.9		25	17.3
175	24	12,224	-[illegible]		25	[illegible]
150	24	13,247	-48.1		25	17.1
125	24	14,449	-48.0		25	16.3
100	24	15,911	-50.0		25	16.6
80	24	17,369	-49.4		25	15.6
70	24	18,277	-49.4		25	14.5
60	24	19,257	-50.2		25	13.6
50	24	20,450	-48.9		25	13.6
40	20	21,915	-49.0		26	13.7
30	20	23,800	-48.0		27	11.5
25	19	25,007	-47.8		27	11.4
20	19	26,484	-46.0		28	11.3
15	18	28,408	-44.3		28	13.7
10	10	31,169	-43.5		25	[illegible]
7						

DAYTON, OH
981 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	29	299	1.0	-3.5	24	2.1
1000	29	357	1.3	-4.5	24	4.8
950	29	742	.5	-6.4	24	4.5
900	29	1,201	-.3	-11.9	27	3.9
850	29	1,721	-1.9	-13.9	27	3.8
800	29	1,935	-1.9	-13.9	27	4.5
750	29	2,446	-4.2	-16.1	27	5.4
700	29	2,988	-6.5	-18.7	27	6.8
650	29	3,563	-9.6	-22.5	28	7.5
600	29	4,177	-13.2	-25.5	27	8.9
550	29	4,835	-17.2	-29.4	29	10.2
500	29	5,543	-22.0	-33.8	28	11.2
450	29	6,313	-27.4	-38.0	27	13.5
400	29	7,147	-33.7	-42.9	27	15.8
350	29	8,073	-40.6	-46.4	27	18.5
300	29	9,113	-48.2		27	21.0
250	28	10,284	-54.5		27	23.3
200	28	11,703	-56.4		27	25.1
175	27	12,458	-55.8		28	27.7
150	26	13,326	-56.2		28	31.9
125	24	14,280	-58.3		28	28.3
100	24	15,687	-60.6		27	23.7
90	24	17,453	-60.8		27	18.3
80	24	18,283	-60.4		28	15.2
70	24	19,238	-59.6		28	11.5
60	24	20,379	-59.2		29	9.7
50	24	21,779	-57.5		30	7.9
40	24	23,603	-56.5		32	5.3
30	24	24,762	-55.8		32	4.4
25	24	24,762	-55.8		32	4.4
20	17	26,168	-55.1		29	5.2
15	17	28,008	-53.3		29	6.7
10	6	30,684	-49.3			
7						

DEL RIO, TX
981 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	29	314	11.1	4.1	09	1.8
1000	29	384	13.4	4.3	15	3.8
950	29	1,040	13.7	.9	19	4.7
900	29	1,521	12.7	-3.9	21	3.8
850	29	2,027	11.0	-10.0	24	4.5
800	29	2,563	8.2	-12.5	26	5.4
750	29	3,128	4.4	-14.9	27	6.8
700	29	3,726	.0	-17.8	26	7.5
650	29	4,362	-4.4	-21.5	26	9.8
600	29	5,042	-8.8	-25.3	26	11.2
550	29	5,772	-14.2	-30.1	26	13.5
500	29	6,563	-19.8	-34.2	26	15.8
450	29	7,426	-26.4	-40.3	26	18.5
400	29	8,379	-33.9	-45.8	26	21.0
350	29	9,438	-42.3		26	23.3
300	29	10,643	-52.0		26	25.1
250	29	12,067	-58.4		26	27.7
200	29	12,902	-60.6		26	27.5
175	29	13,860	-61.8		26	25.7
150	29	14,980	-64.7		26	23.1
125	29	16,332	-68.2		26	17.3
100	29	17,866	-69.0		27	12.7
90	29	18,465	-68.7		28	9.4
80	29	19,385	-68.5		29	6.0
70	29	20,488	-64.0		29	1.2
60	29	21,804	-60.7		03	1.5
50	29	23,672	-57.1		05	3.9
40	29	24,830	-55.7		06	3.6
30	29	26,260	-53.3		06	3.8
25	29	28,133	-49.8		03	1.0
20	29	30,805	-45.4			
15						
10						
7						

DENVER, CO
835 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	29	1,611	-.5	-10.4	21	1.4
1000						
950						
900						
850						
800	29	1,940	2.7	-12.7	27	4.3
750	29	2,479	.4	-14.9	29	7.0
700	29	3,029	-2.9	-17.3	29	8.4
650	29	3,613	-6.7	-20.1	29	10.0
600	29	4,232	-11.2	-23.4	29	12.2
550	29	4,895	-15.4	-28.8	29	13.9
500	29	5,607	-20.5	-34.2	28	15.3
450	29	6,378	-26.5	-38.5	28	16.6
400	29	7,218	-32.9	-43.4	27	18.8
350	29	8,146	-40.1	-48.4	27	21.2
300	29	9,178	-47.9		27	24.1
250	29	10,363	-54.4		27	26.4
200	29	11,782	-57.7		27	29.0
175	29	12,623	-57.8		27	28.3
150	29	13,598	-57.4		27	26.2
125	29	14,747	-58.6		27	20.9
100	29	16,143	-60.8		27	15.9
90	29	17,532	-60.9		27	11.9
80	26	18,360	-60.7		28	10.2
70	26	19,321	-60.1		29	7.2
60	24	20,491	-58.6		32	4.0
50	24	21,872	-56.5		01	3.6
40	24	23,705	-55.5		03	4.7
30	24	24,867	-54.7		02	4.9
25	24	26,270	-54.2		36	5.0
20						
15						
10						
7						

DODGE CITY, KS
923 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	28	791	1.4	-7.6	26	2.1
1000	28	998	5.7	-7.9	28	3.6
950	28	1,467	6.8	-11.0	28	6.1
900	28	1,964	5.4	-12.7	28	8.3
850	28	2,489	3.0	-14.2	28	10.0
800	28	3,044	-1.0	-17.8	28	12.1
750	28	3,631	-5.0	-20.8	28	12.8
700	28	4,255	-9.2	-24.6	27	15.0
650	28	4,921	-14.0	-27.7	27	16.0
600	28	5,632	-19.3	-33.8	27	18.0
550	28	6,412	-25.1	-39.0	27	19.3
500	28	7,257	-31.3	-43.5	27	22.3
450	28	8,192	-38.2	-48.0	27	26.1
400	28	9,233	-46.2		27	30.1
350	28	10,422	-54.3		27	34.0
300	28	11,837	-58.7		28	35.8
250	28	12,674	-58.7		27	32.6
200	28	13,646	-59.1		27	28.8
175	28	14,785	-60.9		27	25.2
150	28	16,166	-62.9		26	19.5
125	28	17,539	-63.6		28	14.4
100	28	19,357	-63.3		28	10.6
90	28	20,309	-62.2		29	8.4
80	28	21,441	-60.1		32	4.4
70	24	22,837	-58.7		34	2.9
60	24	23,646	-56.6		04	5.2
50	24	24,805	-55.8		05	5.1
40	24	26,228	-54.2		04	4.8
30	24	28,081	-52.2		05	8.6
25						
20						
15						
10						
7						

EL PASO, TX
884 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	29	1,193	5.9	-4.9	26	1.1
1000	29	1,215	10.4	-7.0	26	2.6
950	29	1,617	7.8	-9.4	26	6.0
900	29	2,046	4.3	-12.0	26	8.6
850	29	2,503	.0	-16.4	25	9.8
800	29	2,993	-2.7	-19.0	26	11.0
750	29	3,513	-5.3	-21.9	26	12.5
700	29	4,066	-8.7	-25.8	26	14.7
650	29	4,656	-11.5	-31.2	26	16.5
600	29	5,286	-15.1	-36.4	26	18.7
550	29	5,961	-19.0	-40.8	25	20.6
500	29	6,686	-22.0	-45.9	25	22.8
450	29	7,469	-25.2		25	24.9
400	29	8,317	-29.2		25	27.2
350	29	9,252	-34.0		25	27.6
300	29	10,283	-40.0		25	27.1
250	29	11,435	-48.1		26	27.1
200	29	11,975	-58.1		26	27.1
175	29	12,811	-61.6		26	25.2
150	29	13,767	-61.4		26	24.1
125	29	14,892	-63.3		26	21.9
100	29	16,247	-66.4		26	18.7
90	29	17,594	-67.4		27	17.7
80	29	18,398	-66.0		27	17.0
70	29	19,329	-66.1		28	16.5
60	29	20,443	-63.4		30	14.3
50	29	21,822	-60.4		05	6.0
40	29	23,630	-57.0		06	4.3
30	29	25,211	-53.9		07	3.7
25	29	27,075	-51.5		06	5.3
20						
15						
10						
7						

ELY, NV
808 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	29	199	-4.7	-8.2	21	2.5
1000	28	12	14.3	7.5	32	1.4
950	28	135	17.2	7.8	34	1.7
900	28	575	18.5	6.4	34	1.9
850	28	1,036	16.3	-.8	30	1.3
800	28	1,520	13.6	-4.3	03	2.7
750	28	2,028	11.1	-7.3	13	4.8
700	28	2,563	7.6	-10.1	23	5.9
650	28	3,127	3.9	-12.5	24	6.9
600	28	3,725	.3	-15.9	24	8.7
550	28	4,362	-4.0	-19.1	24	10.0
500	28	5,042	-9.0	-22.6	24	12.1
450	28	5,773	-14.4	-27.5	24	13.3
400	28	6,563	-20.2	-31.7	25	15.1
350	28	7,424	-26.9	-37.8	25	17.1
300	28	8,375	-34.5	-45.2	25	19.2
250	28	9,432	-42.6		25	22.8
200	28	10,640	-50.8		25	25.0
175	27	12,071	-57.6		25	25.7
150	28	12,909	-60.1		26	23.3
125	27	13,871	-63.6		25	22.7
100	27	14,998	-63.6		25	19.8
90	26	16,355	-67.4		26	14.2
80	24	17,694	-68.1		26	10.6
70	23	18,499	-68.5		26	8.2
60	22	19,429	-67.7		27	5.9
50	21	20,537	-64.7		29	2.8
40	21	21,913	-60.8		05	1.8
30	20	23,728	-57.1		07	3.5
25	20	24,886	-55.1		08	3.9
20	16	26,316	-53.2		08	.6
15	14	28,193	-49.6			
10						
7						

EMPALME, MEXICO
1,015 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	28	12	14.3	7.5	32	1.4
1000	28	135	17.2	7.8	34	1.7
950	28	575	18.5	6.4	34	1.9
900	28	1,036	16.3	-.8	30	1.3
850	28	1,520	13.6	-4.3	03	2.7
800	28	2,028	11.1	-7.3	13	4.8
750	28	2,563	7.6	-10.1	23	5.9
700	28	3,127	3.9	-12.5	24	6.9
650	28	3,725	.3	-15.9	24	8.7
600	28	4,362	-4.0	-19.1	24	10.0
550	28	5,042	-9.0	-22.6	24	12.1
500	28	5,773	-14.4	-27.5	24	13.3
450	28	6,563	-20.2	-31.7	25	15.1
400	28	7,424	-26.9	-37.8	25	17.1
350	28	8,375	-34.5	-45.2	25	19.2
300	28	9,432	-42.6		25	22.8
250	28	10,640	-50.8		25	25.0
200	28	12,071	-57.6		25	25.7
175	28	12,865	-56.9		26	23.3
150	27	13,824	-56.5		27	19.3
125	27	14,775	-58.8		27	17.0
100	27	16,166	-61.6		28	12.9
90	27	17,549	-61.7		28	7.9
80	26	18,378	-60.5		28	7.1
70	25	19,340	-59.7		31	4.6
60	24	20,478	-59.0		35	1.3
50	24	21,895	-57.6		04	2.4
40	24	23,725	-55.4		05	4.6
30	22	24,891	-54.2		06	7.9
25	16	26,324	-52.9		05	7.2
20						
15						
10						
7						

FAIRBANKS, AK
998 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	29	135	-27.2	-29.0	02	1.4
1000	10	210	-15.6	-20.5	05	1.8
950	29	500	-18.6	-23.3	09	2.1
900	29	904	-17.6	-23.7	11	3.0
850	29	1,333	-16.8	-23.1	11	2.5
800	29	1,788	-18.0	-25.0	09	2.2
750	29	2,269	-19.3	-28.2	10	1.1
700	29	2,780	-21.8	-31.1	21	.9
650	29	3,322	-24.8	-34.2	24	2.6
600	29	3,901	-28.0	-37.1	26	3.5
550	29	4,520	-32.1	-40.9	26	5.3
500	29	5,187	-36.6	-43.6	26	5.8
450	29	5,910	-41.4	-38.0	26	6.7
400	29	6,703	-46.7	-42.1	26	8.0
350	29	7,582	-51.7		26	8.7
300	28	8,570	-55.8		26	11.0
250	27	9,720	-56.2		26	13.4
200	27	11,141	-54.7		27	16.6
175	27	11,997	-54.1		27	17.4
150	27	12,987	-53.6		27	20.1
125	27	14,159	-53.7		27	22.5
100	27	15,593	-53.8		27	26.6
90	26	17,040	-52.8		27	29.3
80	24	17,903	-52.7		27	30.6
70	24	18,914	-52.1		28	32.5
60	24	20,098	-51.6		28	34.4
50	24	21,544	-51.6		28	37.6
40	22	23,478	-51.0		28	34.5
30	21	24,716	-50.3		27	34.6
25	17	26,166	-49.4		28	38.4
20						
15						
10						
7						

FLINT, MI
985 MB

Standard pressure surface (mb)	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of degrees	Resultant Wind Speed m.p.s.
SFC	29	236	-2.2	-5.7	25	2.5
1000	29	322	-

RAWINSONDE DATA

Average monthly values

FEBRUARY 1976

GRAND JUNCTION, CO — 853 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	1,472	-1.0	-7.4	12	1.7
1000						
950						
900						
850	29	1,537	1.0	-6.7	12	2.7
800	29	1,601	1.3	-8.1	17	3.1
750	29	1,668	-1.2	-11.0	23	3.7
700	29	1,738	-4.4	-15.1	26	6.4
650	29	1,811	-8.1	-18.0	28	8.3
600	29	1,892	-12.3	-23.1	27	11.2
550	29	1,982	-16.5	-27.6	27	14.2
500	29	2,082	-21.3	-34.1	27	15.9
450	29	2,198	-26.8	-37.3	27	16.9
400	29	2,329	-33.4	-43.1	27	18.8
350	29	2,486	-39.9	-47.5	27	20.2
300	29	9,192	-46.9		27	25.7
250	29	10,380	-53.7		27	28.7
200	29	11,800	-56.7		27	28.3
175	29	12,667	-56.4		27	25.7
150	29	13,646	-57.0		27	22.3
125	29	14,775	-59.3		27	19.5
100	28	16,166	-61.5		27	16.0
80	28	17,546	-61.8		27	11.7
70	28	18,305	-61.2		27	9.4
60	28	19,333	-60.4		29	5.2
50	8	20,493	-59.2		30	3.1
40	27	21,882	-57.1		32	4.1
30	25	23,712	-55.1		04	5.9
25	23	24,878	-54.5		05	6.4
20	22	26,309	-53.1		05	8.5
15	20	28,191	-51.4		06	12.1
10						

GREAT FALLS, MT — 884 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	1,118	-2.8	-11.0	22	6.2
1000						
950	29	1,430	-1.1	-13.0	24	11.0
900	29	1,742	1.3	-8.1	17	3.1
850	29	1,818	-1.2	-7.4	17	3.7
800	29	1,895	-4.4	-15.1	26	6.4
750	29	1,975	-8.1	-18.0	28	8.3
700	29	2,058	-12.3	-23.1	27	11.2
650	29	2,145	-16.5	-27.6	27	14.2
600	29	2,238	-21.3	-34.1	27	15.9
550	29	2,339	-26.8	-37.3	27	16.9
500	29	2,450	-33.4	-43.1	27	18.8
450	29	2,573	-39.9	-47.5	27	20.2
400	29	2,713	-46.9		27	25.7
350	29	2,875	-54.7		28	28.7
300	29	3,064	-62.3		28	28.3
250	29	3,287	-69.7		28	25.7
200	29	3,554	-77.1		28	22.3
175	29	3,708	-80.8		28	19.5
150	29	3,880	-84.5		28	16.0
125	29	4,076	-88.2		28	11.7
100	29	4,304	-91.9		28	9.4
80	29	4,521	-95.6		28	5.2
70	29	4,646	-97.4		28	3.1
60	29	4,781	-99.3		28	4.1
50	29	4,928	-101.1		28	5.9
40	29	5,090	-103.0		28	6.4
30	29	5,272	-104.8		28	8.5
25	29	5,374	-105.7		28	12.1
20						
15						
10						

GREEN BAY, WI — 997 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	210	-5.0	-9.0	29	1.4
1000						
950	29	513	-4.4	-9.4	31	4.1
900	29	818	-4.9	-12.4	30	6.4
850	29	1,128	-5.5	-16.9	30	8.9
800	29	1,443	-6.8	-19.5	29	10.7
750	29	1,764	-9.2	-19.8	29	13.9
700	29	2,092	-11.5	-22.6	29	16.4
650	29	2,429	-14.5	-25.1	28	18.8
600	29	2,776	-17.8	-26.6	28	21.1
550	29	3,134	-21.6	-30.4	28	24.0
500	29	3,506	-26.0	-34.6	28	26.9
450	29	3,894	-31.3	-40.6	28	28.7
400	29	4,301	-37.4	-41.5	28	31.4
350	29	4,732	-44.1		28	33.1
300	29	5,193	-50.5		28	33.9
250	29	5,693	-54.8		27	37.9
200	29	6,243	-54.8		28	36.9
175	29	6,532	-53.5		28	32.6
150	29	6,850	-54.1		28	30.2
125	29	7,210	-54.5		27	27.5
100	28	7,646	-57.3		27	19.7
80	28	8,117	-57.3		28	16.8
70	28	8,401	-57.2		28	14.4
60	28	8,751	-57.8		29	14.0
50	27	9,196	-58.8		29	11.9
40	27	9,741	-58.7		30	9.6
30	24	10,582	-58.0		31	9.6
25	24	11,141	-56.0		31	8.6
20	24	11,856	-53.9		35	7.8
15	24	12,766	-51.8		36	8.0
10	9	13,792	-47.6			

GREENSBORO, NC — 987 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	275	5.0	.3	23	2.0
1000						
950	29	587	7.8	-3.4	26	7.2
900	29	900	6.2	-6.6	27	9.5
850	29	1,212	6.2	-11.9	28	12.4
800	29	1,526	3.7	-8.6	27	10.6
750	29	1,843	1.7	-11.9	28	12.4
700	29	2,165	-.2	-16.4	28	14.1
650	29	2,494	-2.3	-19.7	28	15.5
600	29	2,831	-3.1	-19.7	28	15.5
550	29	3,178	-6.4	-23.2	28	17.4
500	29	3,537	-10.2	-25.9	28	19.2
450	29	3,911	-14.5	-25.1	28	18.8
400	29	4,301	-17.8	-26.6	28	21.1
350	29	4,710	-21.6	-30.4	28	24.0
300	29	5,140	-26.0	-34.6	28	26.9
250	29	5,606	-31.3	-40.6	28	28.7
200	29	6,161	-37.4	-41.5	28	31.4
175	29	6,485	-41.0		28	33.1
150	29	6,853	-44.1		28	33.9
125	29	7,296	-45.4		28	32.8
100	29	7,896	-44.1		28	33.9
80	29	8,513	-50.5		28	33.9
70	29	8,961	-51.4		28	32.8
60	29	9,494	-51.4		28	32.8
50	28	10,133	-55.4		28	34.6
40	28	10,990	-54.8		27	37.9
30	28	11,514	-54.8		28	36.9
25	28	12,372	-53.5		28	32.6
20	28	13,362	-54.1		28	30.2
15	28	14,530	-54.5		27	27.5
10	28	15,947	-57.3		27	19.7
8	28	17,357	-57.3		28	16.8
7	28	18,201	-57.2		28	14.4
6	28	19,175	-57.8		29	14.0
5	27	20,338	-57.1		29	11.9
4	27	21,741	-56.7		30	9.6
3	24	23,582	-56.0		31	9.6
2	24	24,741	-56.0		31	8.6
1	24	26,216	-53.9		35	7.8
.5	15	27,108	-51.8		36	8.0
.4	9	30,792	-47.6			

GUADALUPE IS., MEXICO — 1016 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Resultant Wind Temperature °C	Resultant Wind Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	27	23	14.0	10.4	32	4.6
1000	27	153	13.6	8.5	33	6.0
950	27	584	12.3	1.5	32	3.4
900	27	1,037	11.0	-3.9	31	2.2
850	27	1,513	9.0	-5.2	28	3.4
800	27	2,014	7.4	-9.7	27	3.7
750	27	2,543	5.2	-12.5	27	4.4
700	27	3,103	2.1	-15.9	26	4.5
650	27	3,696	-2.0	-18.6	25	5.8
600	27	4,327	-6.1	-22.2	25	6.9
550	27	5,002	-10.0	-26.7	24	9.1
500	27	5,728	-16.1	-31.4	25	9.3
450	27	6,514	-21.8	-36.2	25	10.5
400	27	7,368	-28.2	-40.9	25	11.4
350	27	8,310	-35.1	-46.7	26	12.7
300	27	9,370	-43.1		26	14.3
250	25	10,575	-51.1		26	15.7
200	24	12,010	-57.1		26	16.0
175	24	12,853	-58.4		26	17.8
150	24	13,818	-60.1		26	17.4
125	24	14,940	-63.3		26	16.1
100	24	16,309	-66.3		26	13.0
80	24	17,653	-67.3		25	11.0
70	24	18,464	-67.2		26	8.1
60	24	19,391	-66.8		26	4.2
50	20	20,494	-63.8		29	1.6
40	18	21,870	-59.0		07	2.0
30	14	23,694	-56.9		04	4.1
25	10	24,858	-55.1		06	5.4
20	7	26,275	-54.4			

GUAM, MARIANA IS. — 998 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	...1	24.1	21.5	08	3.7
1000	29	117	23.9	20.5	07	5.6
950	29	545	21.4	18.8	08	8.5
900	29	1,013	18.4	15.4	08	8.9
850	29	1,502	16.1	10.8	09	7.1
800	29	2,016	13.7	5.9	09	5.3
750	29	2,559	7.2	-.3	09	3.1
700	29	3,135	9.5	-4.1	10	1.8
650	29	3,746	6.3	-7.7	10	1.4
600	29	4,398	2.6	-13.2	10	1.8
550	29	5,097	-1.1	-18.0	06	2.0
500	29	5,851	-5.6	-20.8	05	2.1
450	29	6,669	-10.6	-25.5	03	3.5
400	29	7,560	-16.3	-32.7	01	3.4
350	29	8,550	-23.3	-38.8	36	3.1
300	29	9,666	-31.8	-46.2	33	1.9
250	29	10,928	-42.2		26	1.2
200	29	12,398	-54.2		20	3.3
175	24	13,242	-61.0		19	4.2
150	24	14,182	-68.7		17	4.4
125	15	15,256	-76.4		14	3.5
100	24	16,518	-82.5		11	6.9
80	23	17,771	-80.5		09	5.3
70	23	18,533	-75.6		09	3.8
60	22	19,440	-70.3		19	.4
50	22	20,535	-66.3		25	4.2
40	22	21,898	-62.8		26	6.5
30	20	23,695	-57.7		27	8.0
25	9	24,883	-54.9		28	4.6
20	7	26,291	-51.2		29	1.7
15	4	28,177	-47.8		08	2.7
10	8	30,899	-42.1			
7						
5						

HILO, HI — 1016 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	10	19.5	17.3	21	1.1
1000	29	151	19.8	15.7	17	1.1
950	29	592	16.8	13.9	12	2.8
900	29	1,051	13.7	11.1	12	3.6
850	29	1,531	10.5	8.1	13	3.4
800	29	2,035	8.1	2.4	14	3.2
750	29	2,566	6.0	-4.4	14	3.4
700	29	3,129	3.8	-12.3	13	3.3
650	29	3,728	.7	-15.3	13	3.1
600	29	4,366	-2.9	-19.4	12	2.6
550	29	5,050	-7.1	-22.9	19	2.1
500	29	5,786	-12.3	-27.2	23	2.0
450	29	6,583	-17.7	-31.7	27	3.5
400	29	7,450	-23.8	-37.4	28	5.6
350	29	8,419	-30.5	-42.8	28	8.0
300	29	9,494	-38.4	-49.7	30	11.2
250	29	10,725	-47.1		31	14.4
200	29	12,170	-56.8		31	18.1
175	29	13,007	-61.6		30	16.9
150	29	13,950	-66.5		30	16.9
125	29	15,047	-69.6		30	13.9
100	29	16,368	-73.5		30	8.8
80	29	17,672	-74.2		32	3.7
70	29	18,454	-72.2		31	1.2
60	29	19,370	-68.4		34	.9
50	29	20,474	-65.2		36	.8
40	29	21,898	-60.8		07	1.6
30	29	23,654	-57.1		05	1.6
25	29	24,814	-55.4		04	3.0
20	29	26,255	-52.4		02	1.4
15	28	28,118	-49.6		12	.6
10	12	30,831	-42.9		13	6.0

HUNTINGTON, WV — 989 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	246	4.1	-2.0	23	1.8
1000						
950	29	569	4.4	-3.1	25	7.2
900	29	1,008	2.9	-4.9	26	11.7
850	29	1,470	1.0	-8.2	27	13.7
800	29	1,956	-.9	-10.5	27	14.9
750	29	2,469	-3.0	-13.9	27	16.6
700	29	3,013	-5.5	-19.8	27	18.1
650	29	3,591	-8.4	-23.8	28	19.8
600	29	4,208	-12.0	-26.1	28	22.0
550	29	4,869	-16.0	-29.1	28	22.9
500	29	5,581	-20.7	-32.7	28	25.0
450	28	6,350	-25.9	-38.3	28	27.8
400	28	7,193	-32.2	-43.8	28	30.0
350	28	8,121	-39.1	-46.5	27	32.4
300	26	9,155	-46.6		27	34.0
250	26	10,344	-53.7		27	36.9
200	26	11,766	-55.9		28	36.6
175	26	12,616	-55.6		27	35.7
150	26	13,597	-56.7		27	32.2
125	26	14,740	-58.7		28	28.1
100	25	16,134	-61.0		28	23.8
80	25	17,510	-61.3		28	18.5
70	23	18,337	-61.0		28	15.1
60	22	19,297	-60.2		28	13.5
50	22	20,438	-59.0		29	10.3
40	21	21,841	-57.6		29	6.8
30	19	23,671	-55.9		30	5.3
25	18	24,834	-54.9		31	5.3
20	18	26,266	-53.2		31	5.4
15	15	28,118	-51.7		31	5.3
10	6	30,735	-50.2			

INTERNATIONAL FALLS, MN — 968 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	359	-11.4	-15.1	24	1.1
1000						
950	29	503	-8.9	-13.3	27	2.4
900	29	920	-8.1	-14.4	28	6.5
850	29	1,343	-9.4	-16.7	29	9.0
800	29	1,830	-11.0	-18.0	30	10.6
750	29	2,324	-13.1	-21.9	30	12.2
700	29	2,847	-15.9	-26.5	30	14.3
650	29	3,402	-18.8	-29.8	30	16.5
600	29	3,995	-21.9	-32.8	30	19.4
550	29	4,631	-25.7	-35.7	29	22.3
500	29	5,316	-30.1	-39.2	29	24.7
450	29	6,058	-35.1	-41.2	29	27.5
400	29	6,869	-41.0	-43.5	29	29.5
350	29	7,768	-47.0		28	31.6
300	29	8,773	-52.6		28	34.7
250	29	9,943	-55.1		28	36.3
200	29	11,372	-53.3		28	33.1
175	29	12,232	-52.9		28	32.7
150	29	13,229	-52.3		28	30.3
125	29	14,407	-53.3		28	30.4
100	29	15,842	-54.5		28	25.5
80	29	17,270	-55.0		29	23.4
70	29	18,122	-55.5		29	21.5
60	29	19,104	-55.9		29	20.2
50	28	20,270	-56.1		29	18.6
40	27	21,697	-55.3		30	16.4
30	27	23,540	-54.9		31	14.4
25	27	24,709	-55.1		31	13.7
20	27	26,134	-55.5		31	14.2
15	27	28,009	-52.8		33	16.4
10	16	30,660	-50.2		34	17.6
8	13	33,049	-46.3		34	22.8
6	6	35,277	-42.8			

ISLE DEL LISNE — 1015 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	10	23.7	19.5	06	3.3
1000	29	139	23.4	18.1	06	4.4
950	29	586	19.6	16.0	07	5.7
900	29	1,050	16.3	11.8	08	6.0
850	29	1,534	13.2	7.4	09	5.6
800	29	2,042	10.8	2.4	09	4.7
750	29	2,579	8.7	-4.1	09	4.9
700	29	3,147	6.7	-8.5	08	4.7
650	29	3,753	4.1	-13.9	08	4.2
600	29	4,400	.8	-17.1	08	3.3
550	29	5,094	-3.3	-22.2	08	2.3
500	29	5,841	-8.2	-26.0	04	.6
450	29	6,650	-13.9	-31.0	27	2.1
400	29	7,533	-20.0	-37.2	28	4.0
350	29	8,509	-28.4	-43.2	27	7.8
300	29	9,593	-36.3	-50.5	25	14.2
250	29	10,835	-44.6		24	21.7
200	29	12,299	-53.7		24	23.5
175	29	13,140	-59.5		25	22.9
150	29	14,099	-64.6		25	17.6
125	29	15,194	-71.5		25	11.5
100	29	16,498	-76.5		25	3.9
80	29	17,774	-76.9		32	.1
70	29	18,548	-74.6		05	.9
60	29	19,451	-71.8		33	1.0
50	29	20,542	-66.1		29	3.2
40	27	21,917	-60.2		31	4.6
30	27	23,732	-55.1		30	3.0
25	27	24,901	-53.5		31	2.7
20	27	26,345	-47.8		30	3.2
15	27	28,244	-45.2		24	1.7
10	19	30,972	-40.9			

JACKSON, MS — 1008 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	...	8.9	6.3	19	1.3
1000	29	...8	13.3	5.4	23	2.1
950	29	498	12.9	3.7	24	4.1
900	29	1,008	9.2	-.6	25	7.7
850	29	1,521	8.2	-6.0	25	9...
800	29	2,038	6.7	-9.8	26	10.7
750	29	2,568	4.1	-13.2	26	11.5
700	29	3,105	...0	-16.6	27	12.2
650	29	3,698	-2.4	-19.5	27	12.9
600	29	4,328	-6.5	-22.4	27	14.9
550	29	5,002	-11.0	-27.1	26	17.0
500	29	5,727	-16.2	-32.6	25	18.9
450	29	6,511	-21.9	-36.7	26	20.5
400	29	7,367	-28.6	-41.5	27	23.0
350	29	8,312	-35.7	-47.1	27	25.0
300	29	9,363	-43.8		27	26.9
250	29	10,564	-52.6		27	29.3
200	29	11,983	-56.5		27	31.9
175	29	12,820	-59.8		27	31.4
150	29	13,782	-60.8		27	30.9
125	29	14,911	-63.5		27	28.1
100	29	16,180	-66.4		27	24.4
80	29	17,614	-68.2		27	15.5
70	28	18,418	-67.3		28	12.4
60	28	19,350	-65.7		28	8.5
50	28	20,466	-63.6		30	3.7
40	28	21,844	-60.4		32	4.2
30	28	23,665	-57.5		32	6.7
25	28	24,805	-56.1		05	3.5
20	28	26,231	-54.0		08	3.8
15	28	28,092	-51.1		02	2.4
10	20	30,753	-47.2		22	4.8
7						

JOHN F. KENNEDY INT. AP NY — 1017 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	26	5	1.6	-8.0	25	2.7
1000	26	145	1.3	-7.2	25	4.2
950	26	552	1.4	-8.0	26	10.0
900	26	985	-1.3	-10.8	27	12.2
850	26	1,439	-2.5	-13.8	27	13.4
800	26	1,919	-4.2	-14.3	27	15.4
750	26	2,426	-6.4	-17.4	27	17.8
700	26	2,963	-9.2	-20.1	27	20.6
650	26	3,533	-12.5	-22.4	27	22.5
600	26	4,140	-16.0	-25.6	27	24.6
550	26	4,790	-20.2	-29....	27	25.5
500	26	5,490	-25.1	-33.5	27	27.8
450	26	6,248	-30.1	-38.0	27	31.1
400	26	7,076	-36.1	-41.4	27	33.2
350	26	7,994	-42.1	-43.9	27	35.0
300	26	9,020	-48.3		27	38.6
250	26	10,203	-54.5		27	39.6
200	26	11,615	-57.2		27	37.2
175	26	12,470	-55.6		27	37.2
150	26	13,453	-55.7		27	33.5
125	26	14,610	-57.3		27	29.1
100	26	14,007	-59.5		27	24.8
80	26	17,614	-59.8		28	20.9
70	26	18,328	-60.0		28	17.4
60	26	19,205	-59.0		28	13.7
50	26	20,347	-58.4		28	12.1
40	26	21,744	-58.1		28	10.1
30	26	23,566	-56.5		29	8.1
25	26	24,720	-56.0		29	7.8
20	26	26,143	-54.9		29	6.6
15	26	27,986	-52.9		30	8.3
10						

JOHNSTON IS., PACIFIC AREA — 1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	3	23.8	19.4	09	6.1
1000	29	116	22.7	17.7	09	7.0
950	29	561	18.9	15.7	09	7.9
900	29	1,023	15.5	12.0	09	7.2
850	29	1,507	12.6	8.1	09	5.8
800	29	2,014	10.7	.7	10	4.5
750	29	2,552	9.3	-5.3	10	2.3
700	29	3,121	6.6	-9.8	08	1.0
650	29	3,726	3.4	-12.4	36	1.4
600	29	4,371	-.2	-17.2	33	2.7
550	29	5,062	-4.0	-20.9	32	3.5
500	29	5,807	-8.6	-25.5	31	6.1
450	29	6,617	-13.5	-28.9	31	8.7
400	29	7,502	-19.5	-34.5	31	12.4
350	29	8,483	-26.8	-40.5	31	16.3
300	29	9,575	-34.2	-47.8	31	21.7
250	29	10,828	-43.2		31	23.0
200	29	12,297	-53.9		31	26.4
175	29	13,142	-60.1		31	23.8
150	29	14,089	-66.8		31	21.9
125	29	15,173	-73.5		31	17.0
100	29	16,480	-77.8		33	11.3
80	28	17,735	-77.5		35	3.6
70	28	18,506	-74.0		34	2.3
60	27	19,415	-69.7		33	1.2
50	27	20,513	-65.4		30	1.2
40	27	21,886	-60.7		27	2.0
30	27	23,693	-57.3		31	2.0
25	27	24,853

RAWINSONDE DATA

Average monthly values

NORMAN, CAROLINE IS.
1007 MB

Standard pressure surface mb	No. of observations	Dynamic height meter	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m/s
SFC	29	40	27.0	24.0	05	2.9
1000	29	46	26.1	22.7	06	3.8
975	29	538	22.7	20.4	06	6.7
900	29	[illegible]8	19.6	16.3	36	7.3
850	29	[illegible]99	16.9	11.0	06	6.5
800	29	2,416	15.1	6.1	06	4.5
750	29	2,861	12.8	2.1	06	3.5
700	29	3,337	9.6	-2.1	07	3.7
650	29	3,849	6.3	-6.0	08	4.2
600	29	4,421	2.5	-10.2	08	4.7
550	29	5,110	-1.4	-14.4	08	5.7
500	29	5,854	-5.4	-18.4	09	6.4
450	29	6,673	-10.2	-23.3	08	7.5
400	29	7,571	-16.0	-28.8	08	7.8
350	29	8,564	-22.9	-35.1	08	8.3
300	29	9,672	-31.6	-43.5	09	8.2
250	28	10,934	-42.0		11	10.5
200	28	12,405	-54.2		12	14.2
175	28	13,249	-61.0		12	15.8
150	28	14,190	-68.4		12	16.7
125	28	15,263	-75.9		11	14.8
100	27	16,533	-81.1		10	10.5
80	26	17,795	-78.1		06	3.5
70	26	18,572	-71.3		30	2.1
60	26	19,494	-66.8		27	6.1
50	26	20,618	-62.6		28	9.5
40	25	22,093	-59.6		27	10.3
30	24	23,881	-55.3		27	11.0
25	20	24,977	-53.5		27	11.0
20	19	26,431	-51.2		27	9.3
15	19	28,316	-48.1		27	3.5
10	9	31,031	-42.3			

KOTZEBUE, AK
1019 MB

Standard pressure surface mb	No. of observations	Dynamic height meter	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m/s
SFC	16	5	-28.8	-31.7	33	1.8
1000	16	133	-23.8	-29.2	04	1.0
975	16	514	-18.5	-24.8	05	1.7
900	16	1,198	-17.5	-24.4	16	1.4
850	16	1,746	-17.9	-24.1	18	1.2
800	16	2,299	-18.9	-26.8	09	1.3
750	16	2,878	-20.6	-29.8	14	1.1
700	16	3,486	-22.9	-32.4	17	1.8
650	16	4,126	-26.1	-36.0	17	3.0
600	16	4,801	-29.6	-38.5	18	3.7
550	16	5,517	-32.9	-41.1	19	4.4
500	16	5,883	-36.9	-45.6	20	6.8
450	16	6,933	-41.7	-43.9	21	4.2
400	16	7,695	-46.7		18	5.8
350	16	8,473	-52.1		19	6.1
300	16	8,556	-57.3		21	6.2
250	16	9,701	-59.7		24	7.1
200	16	11,101	-57.5		15	12.5
175	16	11,945	-57.0		16	14.6
150	16	12,923	-56.1		15	16.8
125	16	14,083	-55.9		16	21.7
100	15	15,525	-54.6			
80	11	16,930	-53.4		26	30.3
70	11	17,798	-52.5		26	34.0
60	11	18,796	-52.0		26	35.8
50	11	19,980	-51.0		26	38.4
40	11	21,431	-51.1		26	43.1
30	10	23,285	-51.0			
25	8	24,508	-50.9			
20	5	26,036	-51.0			

[illegible]
1007 MB

Standard pressure surface mb	No. of observations	Dynamic height meter	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m/s
SFC	29	5	11.3	9.6	19	[illegible]
1000	29	167	13.6	8.5	21	[illegible]
975	29	599	12.1	[illegible]	22	[illegible]
900	29	1,051	12.6	[illegible]	24	[illegible]
850	29	1,528	11.0	-6.[illegible]	25	6.6
800	29	2,031	8.7	-9.5	25	7.4
750	29	2,562	5.4	-12.0	26	8.1
700	29	3,123	2.6	-17.4	27	8.4
650	29	3,719	-.9	-20.0	27	9.1
600	29	4,353	-4.9	-22.8	27	10.8
550	29	5,031	-9.4	-27.9	27	11.9
500	29	5,760	-14.9	-32.7	27	13.1
450	29	6,548	-20.7	-36.3	27	15.6
400	29	7,408	-27.3	-41.3	27	17.8
350	29	8,358	-34.6	-47.8	27	20.0
300	29	9,414	-43.9		27	22.7
250	29	10,619	-51.4		27	25.5
200	29	12,043	-58.4		27	28.0
175	29	12,880	-59.1		27	28.9
150	29	13,842	-60.8		26	27.1
125	29	14,965	-64.5		26	24.4
100	29	16,318	-68.1		26	20.2
80	28	17,655	-69.0		27	13.6
70	28	18,455	-68.5		28	9.8
60	28	19,381	-67.6		28	6.1
50	28	20,483	-64.3		29	3.2
40	26	21,860	-60.6		34	1.[illegible]
30	23	23,675	-57.3		05	2.5
25	19	24,847	-55.5		07	2.9
20	18	26,262	-53.6		36	2.6
15	17	28,128	-50.1		06	3.1
10	12	30,829	-44.0		28	5.2

[illegible]
[illegible] MB

Standard pressure surface mb	No. of observations	Dynamic height meter	Temperature °C	Dew Point °C	Resultant Wind Direction Tens of Deg	Resultant Wind Speed m/s
SFC	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1000	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
975	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
800	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
750	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
700	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
650	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
600	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
350	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
200	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
175	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
150	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
125	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
80	28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

RAWINSONDE DATA

Average monthly values

FEBRUARY 1976

NASHVILLE, TN — 998 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	24	[illegible]	5.5	1.5	20	1.4
1000	25	214	-.8	-.3	24	1.0
950	25	583	6.6	-1.1	24	6.5
900	25	[illegible]	5.5	-4.5	26	9.5
850	29	1,493	4.2	-6.7	28	10.4
800	29	1,984	2.0	-9.9	27	11.5
750	29	2,503	-.5	-14.7	27	13.3
700	29	3,052	-3.0	-19.1	27	15.2
650	29	3,635	-6.2	-21.7	27	17.5
600	29	4,257	-9.8	-23.3	27	19.3
550	29	4,923	-14.1	-26.4	27	22.2
500	29	5,639	-19.1	-30.7	27	23.0
450	29	6,415	-24.6	-36.0	27	25.3
400	29	7,264	-30.9	-41.6	27	28.1
350	29	8,189	-38.0	-45.4	27	30.2
300	29	9,240	-45.7		27	33.7
250	29	10,433	-53.2		27	36.9
200	29	11,846	-58.3		27	35.9
150	29	13,686	-58.3		27	32.4
100	29	13,656	-59.0		27	30.1
95	29	14,793	-61.5		27	28.9
90	29	16,170	-63.4		27	23.4
85	29	17,537	-64.1		28	17.8
80	29	18,357	-63.3		28	13.7
75	29	19,336	-62.0		28	8.6
70	29	20,437	-60.6		28	4.1
65	29	21,834	-58.4		31	3.7
60	29	23,648	-57.2		34	2.7
55	29	24,814	-55.1		03	2.9
50	29	26,184	-53.7		01	2.9
45	29	27,987	-46.2		27	40.9
40	26	30,735	-47.9		27	6.2
35						
30						
25						

* NOME, AK — 1015 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	[illegible]	-27.2	-30.4	03	1.3
1000	28	119	-18.9	-23.8	06	1.4
950	29	499	-17.9	-24.6	07	2.0
900	29	903	-17.7	-25.7	05	2.2
850	29	1,331	-17.6	-27.8	04	1.9
800	29	1,784	-18.8	-29.4	02	1.8
750	29	2,263	-20.8	-32.3	36	1.4
700	29	2,771	-23.1	-34.8	36	1.0
650	29	3,310	-26.0	-37.7	35	1.8
600	29	3,886	-29.2	-40.2	35	2.7
550	29	4,503	-32.8	-42.9	35	3.4
500	29	5,168	-37.0	-44.5	34	3.9
450	29	5,890	-41.8	-43.8	34	5.1
400	29	6,679	-46.8		33	5.6
350	29	7,557	-51.9		33	7.4
300	29	8,545	-55.5		33	8.3
250	29	9,702	-56.7		25	8.1
200	29	11,126	-54.0		26	10.4
150	29	11,984	-53.6		26	12.6
100	29	12,976	-53.6		26	15.2
95	29	14,151	-52.9		26	18.6
90	29	15,592	-52.5		26	22.4
85	29	17,035	-52.1		26	25.5
80	29	17,901	-51.5		26	27.7
75	29	18,903	-50.9		26	28.9
70	29	20,090	-51.1		26	30.5
65	29	21,542	-50.2		27	32.8
60	29	23,422	-49.6		27	35.0
55	29	24,829	-48.7		27	36.4
50	29	26,051	-47.6		27	40.2
45	29	27,987	-46.2		27	40.9
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NORTH PLATTE, NE — 916 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	847	-4.7	-8.5	34	1.5
1000						
950						
900	29	986	-.1	-6.8	31	3.8
850	29	1,447	2.1	-9.8	31	8.6
800	29	1,936	.6	-11.8	30	10.3
750	29	2,452	-1.3	-13.6	30	12.1
700	29	2,998	-4.2	-16.8	29	13.9
650	29	3,579	-7.9	-19.8	29	15.1
600	29	4,197	-11.8	-22.6	29	16.9
550	29	4,857	-16.2	-25.7	28	17.7
500	29	5,568	-21.3	-31.2	28	19.3
450	29	6,336	-26.8	-36.2	28	21.5
400	29	7,175	-33.4	-42.3	28	23.6
350	29	8,101	-40.7	-45.5	28	24.9
300	29	9,130	-48.5		28	28.3
250	29	10,310	-55.2		28	32.3
200	29	11,727	-57.3		28	33.1
150	29	12,573	-56.3		27	31.4
100	29	13,553	-55.9		27	28.6
95	29	14,710	-57.5		28	24.4
90	29	16,111	-59.8		28	19.2
85	29	17,503	-60.1		28	16.0
80	29	18,337	-60.2		29	13.4
75	29	19,300	-59.8		29	10.2
70	29	20,442	-57.9		31	7.1
65	29	21,860	-56.7		34	4.4
60	29	23,626	-56.1		35	4.8
55	29	24,845	-55.3		01	5.8
50	29	26,266	-54.9		01	6.1
45	28	28,131	-52.7		02	6.8
40	18	30,764	-49.9		36	6.2
35	16	33,103	-47.2		36	9.5
30	9	35,344	-44.1			
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OAKLAND, CA — 1019 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	24	6	8.0	5.9	28	.4
1000	29	163	9.1	4.8	21	.1
950	29	588	8.3	1.2	29	.5
900	29	1,033	6.3	-2.8	26	2.0
850	29	1,500	4.1	-6.9	25	3.3
800	29	1,992	2.2	-12.5	26	3.4
750	29	2,510	-.3	-16.3	26	4.2
700	29	3,059	-3.6	-19.3	28	5.4
650	29	3,641	-6.8	-22.6	28	7.1
600	29	4,261	-10.9	-25.9	28	8.2
550	29	4,924	-15.7	-28.7	28	8.7
500	29	5,636	-20.7	-32.2	28	10.6
450	29	6,407	-26.0	-36.8	28	12.3
400	29	7,248	-32.2	-43.3	28	14.5
350	29	8,180	-38.9	-47.2	28	16.1
300	29	9,219	-46.2		28	18.5
250	29	10,410	-53.7		28	20.1
200	29	11,833	-57.0		28	19.6
150	29	12,680	-56.4		28	17.7
100	29	13,658	-57.3		28	15.6
95	29	14,806	-59.3		28	13.4
90	29	16,195	-61.9		28	9.6
85	29	17,572	-62.7		28	7.6
80	29	18,398	-61.4		29	5.2
75	29	19,356	-60.4		31	2.4
70	29	20,497	-58.9		02	2.1
65	29	21,905	-57.7		06	5.0
60	27	23,729	-55.8		06	8.1
55	27	24,893	-54.6		07	9.8
50	27	26,333	-52.6		07	11.8
45	28	28,211	-50.0		07	13.1
40	26	30,894	-46.9		08	16.9
35						
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OMAHA, NE — 960 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	403	-1.3	-5.4	30	.8
1000						
950						
900	28	535	.7	-6.4	28	2.0
850	29	967	3.1	-11.1	29	5.5
800	29	1,429	2.8	-13.7	30	7.6
750	29	1,910	.3	-14.2	30	8.6
700	29	2,433	-2.0	-15.9	29	10.6
650	29	2,978	-5.1	-17.7	29	12.3
600	29	3,557	-8.0	-21.6	28	15.0
550	29	4,173	-12.3	-25.6	28	17.0
500	29	4,832	-16.9	-29.7	28	18.4
450	29	5,540	-22.6	-33.3	28	20.0
400	29	6,309	-27.8	-38.4	28	21.8
350	29	7,142	-33.7	-43.9	28	24.1
300	29	8,075	-40.7	-47.0	28	24.9
250	29	9,096	-48.7		28	26.9
200	29	10,277	-54.8		28	31.6
150	29	11,695	-56.6		27	34.0
100	29	12,544	-55.9		27	31.2
95	29	13,526	-55.6		28	28.1
90	29	14,684	-57.0		28	24.6
85	29	16,090	-58.9		28	20.8
80	29	17,485	-60.1		29	16.8
75	29	18,319	-59.9		28	14.7
70	29	19,283	-59.0		29	13.1
65	29	20,428	-57.6		30	9.3
60	29	21,841	-56.7		32	5.6
55	29	23,643	-56.0		32	7.2
50	29	25,350	-9.0	-19.4	26	18.2
45	29	27,082	-11.3	-20.7	27	20.5
40	29	28,882	-14.2	-22.8	27	23.2
35	29	30,747	-18.0	-26.4	27	25.2
30	29	32,695	-22.0	-31.6	27	27.4
25	29	34,750	-26.3	-35.2	27	31.3
20	29	36,963	-31.4	-38.6	27	33.7
15	29	39,365	-37.4	-42.1	27	35.2
10	29	41,977	-43.2	-43.9	27	37.1
7	29	43,898	-49.1		27	36.9
5	28	45,081	-53.9		28	36.2
4	27	46,509	-54.6		28	37.2
3	27	47,348	-53.1		27	32.3
2	27	48,359	-53.4		27	28.9
1	27	49,532	-54.5		27	27.1
.5	27	50,904	-56.0		27	24.8
.4	27	51,365	-56.5		27	18.7
.3	27	51,811	-57.0		27	16.8
.2	27	52,342	-57.0		27	15.7
.1	27	53,046	-56.8		27	13.6
.05	27	53,538	-56.0		28	12.4
.04	27	53,838	-55.5		28	10.7
.03	27	54,250	-55.0		28	10.8
.02	27	54,582	-54.8		28	9.8
.01	27	55,035	-54.3		28	10.7
.005	27	55,487	-53.8		28	10.7
.004	27	55,637	-53.6		28	10.7
.003	27	55,787	-53.4		28	10.7
.002	27	55,937	-53.2		28	10.7
.001	27	56,087	-53.0		28	10.7

PAGO PAGO, AMERICAN SAMOA — 1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	5	28.8	23.4	05	3.2
1000	29	93	26.9	21.8	05	3.5
950	29	548	22.2	17.9	04	4.2
900	29	1,018	19.7	16.4	04	4.6
850	29	1,507	16.6	11.9	05	4.4
800	29	2,018	14.1	8.3	05	3.8
750	29	2,565	11.3	4.9	06	3.2
700	29	3,139	8.0	1.6	08	2.6
650	29	3,749	4.9	-1.6	09	3.0
600	29	4,398	1.4	-5.1	10	3.1
550	29	5,085	-2.2	-9.5	11	3.5
500	29	5,847	-6.5	-17.0	12	4.1
450	29	6,664	-11.0	-22.5	13	4.8
400	29	7,559	-16.6	-30.1	14	5.6
350	29	8,552	-23.6	-37.3	14	6.4
300	29	9,657	-32.2	-45.3	15	8.0
250	29	10,916	-42.4		15	11.4
200	29	12,384	-54.6		14	13.2
175	29	13,226	-61.6		16	12.4
150	29	14,165	-68.2		17	10.9
125	29	15,244	-73.6		16	8.8
100	29	16,534	-77.8		13	6.7
90	29	17,822	-74.3		10	8.8
80	29	18,604	-71.9		09	10.4
70	29	19,521	-68.3		09	9.7
60	29	20,627	-64.0		09	10.1
50	29	22,010	-59.1		08	9.4
40	29	23,828	-55.6		09	11.3
30	29	24,997	-53.0		09	13.2
25	27	26,446	-49.9		09	15.9
20	24	28,347	-45.3		09	21.7
15	14	31,065	-41.3		09	28.0
10	6	33,508	-37.6			
7						
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* PEORIA, IL — 991 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	200	-1.4	-4.0	19	.7
1000	29	226	-9.0	-12.8		
950	29	537	1.5	-6.4	26	3.9
900	29	973	1.8	-9.8	28	7.9
850	29	1,433	.8	-11.4	28	11.4
800	29	1,919	-.7	-13.8	28	13.7
750	29	2,433	-2.9	-16.4	28	15.7
700	29	2,976	-6.1	-19.0	28	17.3
650	29	3,553	-9.3	-22.5	28	19.3
600	29	4,168	-12.8	-25.8	27	22.2
550	29	4,826	-17.2	-30.1	28	23.8
500	29	5,534	-22.1	-34.8	28	26.0
450	29	6,295	-28.0	-39.6	28	27.9
400	29	7,130	-34.3	-44.5	27	30.8
350	29	8,053	-41.3	-48.9	27	33.2
300	29	9,081	-48.1		27	35.1
250	29	10,264	-54.8		27	37.0
200	29	11,684	-55.5		27	36.2
150	29	12,537	-54.9		28	34.1
100	29	13,522	-55.5		28	31.1
95	29	14,679	-57.8		28	27.9
90	29	16,081	-59.6		28	23.3
85	29	17,475	-59.9		28	19.4
80	29	18,310	-60.0		28	15.4
75	29	19,273	-59.6		29	11.9
70	29	20,414	-58.3		30	8.6
65	29	21,820	-57.7		30	7.6
60	29	23,642	-56.1		31	6.7
55	29	24,880	-55.5		32	6.0
50	29	26,237	-54.0		33	6.4
45	29	28,091	-52.5		33	6.3
40	30	30,707	-50.4		31	9.2
35	12	32,989	-47.3		29	15.3
30	8	35,201	-45.4			
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* PITTSBURGH, PA — 973 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	359	.7	-6.5	24	3.4
1000						
950	29	550	.8	-6.3	25	6.5
900	29	984	-.6	-8.5	26	11.9
850	29	1,439	-2.5	-10.7	27	14.9
800	29	1,919	-3.7	-13.5	28	17.7
750	29	2,428	-5.7	-18.1	28	19.8
700	29	2,966	-8.1	-20.8	28	21.7
650	29	3,538	-11.1	-24.6	28	23.0
600	29	4,149	-14.8	-27.3	27	24.9
550	29	4,802	-19.0	-30.0	28	27.5
500	29	5,506	-23.1	-35.0	28	29.8
450	29	6,270	-28.1	-39.7	28	32.0
400	29	7,105	-34.2	-44.2	28	34.0
350	29	8,029	-40.8	-48.4	28	36.5
300	29	9,059	-48.0		28	39.4
250	29	10,246	-53.4		28	39.7
200	29	11,674	-54.9		28	36.9
150	29	12,528	-54.5		28	34.5
100	29	13,514	-55.5		28	31.9
95	29	14,670	-57.8		28	26.3
90	29	16,070	-60.1		28	23.7
85	29	17,458	-59.6		28	19.0
80	29	18,295	-58.8		28	14.7
75	29	19,259	-58.4		28	11.8
70	29	20,407	-58.3		28	10.1
65	29	21,811	-57.4		29	7.9
60	29	23,637	-56.0		30	7.0
55	29	24,790	-55.9		30	8.5
50	29	26,215	-54.6		30	7.6
45	29	28,055	-54.0			
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PONAPE, CAROLINE IS. — 1004 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	39	27.9	23.3	06	3.4
1000	29	73	26.7	22.2	06	3.6
950	29	528	23.0	20.2	07	6.9
900	29	996	19.6	16.8	08	7.5
850	29	1,487	16.9	12.5	08	6.8
800	29	2,004	15.4	6.4	09	5.1
750	29	2,550	13.3	.0	09	3.6
700	29	3,127	10.1	-3.8	10	3.7
650	29	3,740	6.7	-7.7	10	4.3
600	29	4,393	3.1	-11.2	09	5.4
550	29	5,094	-.6	-15.5	08	4.5
500	29	5,849	-5.0	-20.1	09	5.2
450	29	6,670	-9.6	-22.5	09	6.4
400	29	7,571	-15.0	-29.1	09	6.1
350	29	8,571	-21.7	-36.4	09	5.7
300	29	9,685	-30.2	-44.6	08	5.0
250	29	10,955	-40.4	-50.7	11	5.5
200	29	12,436	-52.9		13	6.6
150	29	13,284	-59.9		13	7.9
100	29	14,228	-67.9		12	8.5
95	29	15,304	-75.8		10	8.9
90	29	16,569	-81.5		09	11.8
85	29	17,829	-77.8		08	3.9
80	29	18,606	-71.2		28	1.9
75	29	19,527	-66.9		27	7.1
70	29	20,642	-62.5		27	11.4
65	29	22,032	-59.4		27	12.9
60	29	23,852	-55.1		27	12.5
55	29	25,020	-53.3		26	10.9
50	29	26,469	-50.4		26	10.5
45	29	28,357	-48.4		27	4.5
40	8	31,089	-41.0			
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PORTLAND, ME — 1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	24	-4.2	-9.1	27	1.5
1000	24	132	-5.9	-11.2	28	1.9
950	29	502	-3.7	-10.5	25	6.2
900	29	926	-5.0	-12.2	26	10.0
850	29	1,376	-6.2	-14.9	26	12.2
800	29	1,849	-8.0	-17.5	26	15.0
750	29	2,350	-9.0	-19.4	26	18.2
700	29	2,882	-11.3	-20.7	27	20.5
650	29	3,447	-14.2	-22.8	27	23.2
600	29	4,050	-18.0	-26.4	27	25.2
550	29	4,695	-22.0	-31.6	27	27.4
500	29	5,390	-28.3	-35.2	27	31.3
450	29	6,143	-31.9	-38.6	27	33.7
400	29	6,965	-37.9	-42.1	27	35.2
350	29	7,877	-43.2	-43.9	27	37.1
300	29	8,898	-49.1		27	36.9
250	29	10,081	-53.9		28	36.2
200	29	11,509	-54.6		28	37.2
150	29	12,368	-53.1		27	32.3
100	29	13,381	-53.4		27	28.9
95	29	14,532	-54.5		27	27.1
90	29	15,948	-56.0		27	24.8
85	29	17,365	-56.5		27	18.7
80	29	18,211	-57.0		27	16.8
75	29	19,186	-57.0		27	15.7
70	29	20,342	-56.9		27	13.6
65	29	21,759	-56.0		28	12.4
60	29	23,587	-55.5		28	10.7
55	29	24,750	-55.0		28	10.8
50	29	26,182	-54.8		28	9.8
45	29	28,035	-54.3		28	10.7
40	14	30,657	-51.0		30	13.2
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* CUTBANK, MT — 1007 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	98	3.3	1.2	19	1.3
1000	24	135	4.1	.2	18	2.0
950	29	533	2.4	-2.4	29	5.4
900	29	968	.5	-6.0	22	6.0
850	29	1,425	-2.0	-9.8	22	7.7
800	29	1,905	-4.6	-14.0	23	7.6
750	29	2,411	-7.4	-17.0	24	8.4
700	29	2,945	-10.3	-19.3	25	10.0
650	29	3,513	-13.4	-21.7	26	11.3
600	29	4,117	-17.2	-25.5	26	13.0
550	29	4,764	-21.5	-29.1	26	14.4
500	29	5,461	-26.3	-33.5	27	15.8
450	28	6,220	-31.3	-36.9	27	16.1
400	28	7,045	-37.3	-40.6	27	17.9
350	28	7,958	-43.3	-43.3	28	19.2
300	28	8,980	-49.2		28	21.8
250	28	10,162	-54.1		28	22.1
200	28	11,581	-54.3		28	22.7
175	28	12,341	-53.8		28	23.0
150	28	13,432	-53.7		28	21.6
125	28	14,604	-53.5		28	20.2
100	28	16,034	-55.7		29	15.0
90	28	17,456	-55.9		29	11.9
80	28	18,305	-55.7		29	11.2
70	28	19,294	-54.8		30	9.6
60	28	20,468	-53.9		30	7.5
50	28	21,903	-53.1		32	7.1
40	28	23,766	-53.7		34	6.6
30	25	24,961	-51.7		36	5.8
25	19	26,394	-52.5		36	8.6
20	*	28,323	-49.4			
15						
10						
7						
5						

RAPID CITY, SD — 902 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	966	-1.3	-8.9	32	2.3
1000						
950						
900	29	535	-6.2	-10.7	31	3.0
850	29	950	-4.5	-12.9	30	5.0
800	18	1,018	-2.7	-9.8	34	2.9
750	29	1,440	-.7	-11.5	31	8.6
700	29	1,925	-1.6	-16.9	31	11.3
650	29	2,436	-4.7	-17.6	31	12.4
600	29	2,975	-8.1	-19.7	30	13.7
550	29	3,547	-10.9	-22.2	30	15.5
500	29	4,158	-14.4	-25.1	30	17.2
450	29	4,812	-18.7	-29.6	29	18.8
400	29	5,515	-23.9	-34.4	29	20.8
350	29	6,276	-29.6	-39.0	28	22.9
300	29	7,104	-36.4	-43.6	28	25.4
250	29	8,020	-43.2		28	28.1
200	29	9,040	-50.3		28	30.7
150	29	10,213	-56.2		28	30.7
100	29	11,625	-57.3		28	30.9
95	29	12,772	-56.2		28	27.2
90	29	13,459	-55.0		28	25.7
85	29	14,621	-56.1		28	24.0
80	29	16,037	-57.7		28	19.5
75	29	17,440	-57.4		29	14.6
70	29	18,283	-57.9		29	12.9
65	29	19,254	-57.0		29	11.0
60	29	20,412	-56.5		30	8.9
55	29	21,830	-56.1		32	7.3
50	29	23,665	-55.0		33	7.0
45	29	24,837	-54.6		34	7.3
40	29	26,293	-52.6		02	6.8
35	10	28,170	-51.6			
30						
25						

ST CLOUD, MN — 976 MB

| Standard p

RAWINSONDE DATA

Average monthly values

SALEM, OR
1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	20	61	2.5	-4.4	19	2.4
1000	20	144	3.9	-3.3	19	2.3
950	20	558	3.3	-4.3	21	5.7
900	20	965	1.8	-5.1	22	7.7
850	20	1,374	-0.4	-8.7	24	9.3
800	20	1,787	-2.9	-12.3	24	10.0
750	20	2,206	-5.3	-15.0	25	10.9
700	20	2,633	-8.2	-19.3	26	11.7
650	20	3,067	-11.5	-24.0	26	12.5
600	20	3,506	-15.3	-26.6	26	14.3
550	20	3,958	-19.3	-30.4	27	15.2
500	20	4,418	-23.9	-34.7	27	16.2
450	20	4,892	-29.1	-38.6	27	17.7
400	20	5,382	-35.1	-43.9	27	18.1
350	20	5,895	-41.7	-47.5	27	21.0
300	20	6,461	-48.8		29	19.1
250	20	7,242	-54.8		30	18.6
200	20	11,661	-55.7		30	18.0
175	2*	12,517	-54.4		30	18.7
150	2*	13,457	-54.5		29	17.8
125	2*	14,671	-56.1		28	15.7
100	20	16,382	-57.2		28	13.9
80	27	17,994	-57.0		29	8.2
70	27	18,938	-57.9		29	8.7
60	27	19,914	-56.4		30	7.2
50	24	20,976	-55.4		32	6.0
40	25	21,905	-54.8		34	4.1
30	23	23,751	-53.8		02	3.6
25	20	24,945	-53.3		02	6.4
20	20	26,387	-51.5		03	7.9
15	13	28,246	-51.2		02	10.2
10	8	30,922	-47.6			
7						

SALT LAKE CITY, UT
873 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	1,208	-1.6	-5.3	17	4.5
1000						
950						
900						
850	29	1,497	.8	-7.8	19	3.4
800	29	1,787	+2.9	-12.3	24	10.0
750	29	2,080	-5.3	-15.0	25	10.9
700	29	2,378	-8.2	-19.3	26	11.7
650	29	2,681	-11.5	-24.0	26	12.5
600	29	2,990	-15.3	-26.6	26	14.3
550	29	3,305	-19.3	-30.4	27	15.2
500	29	3,629	-23.9	-34.7	27	16.2
450	29	3,962	-29.1	-38.6	27	17.7
400	29	4,307	-35.1	-43.9	27	18.1
350	29	4,667	-41.7	-47.5	27	21.0
300	29	5,048	-48.8		29	19.1
250	29	5,498	-54.8		30	18.6
200	29	6,098	-55.7		30	18.0
175	2*	6,463	-54.4		30	18.7
150	2*	6,882	-54.5		29	17.8
125	2*	7,394	-56.1		28	15.7
100	29	7,982	-57.2		28	13.9
80	27	8,594	-57.0		29	8.2
70	27	8,938	-57.9		29	8.7
60	27	9,314	-56.4		30	7.2
50	24	9,726	-55.4		32	6.0
40	25	10,165	-54.8		34	4.1
30	23	10,751	-53.8		02	3.6
25	20	10,945	-53.3		02	6.4
20	20	11,387	-51.5		03	7.9
15	13	12,236	-51.2		02	10.2
10	8	13,922	-47.6			
7						

SAN DIEGO, CA
1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	124	10.1	6.8	14	3.1
1000	29	159	11.4	5.4	07	4.8
950	29	574	11.5	2.4	07	3.1
900	29	1,024	9.9	-2.5	07	2.4
850	29	1,497	7.1	-6.6	21	3.1
800	29	1,985	5.9	-9.5	23	3.8
750	29	2,520	3.3	-11.6	24	4.4
700	29	3,075	.3	-15.1	24	5.2
650	29	3,664	-4.1	-18.1	25	6.3
600	29	4,291	-8.0	-22.4	25	8.2
550	29	4,960	-13.4	-27.1	25	9.4
500	29	5,679	-19.1	-31.8	25	10.4
450	29	6,458	-25.6	-36.7	25	11.9
400	29	7,308	-29.9	-42.7	25	13.9
350	29	8,250	-30.6	-48.3	25	15.2
300	28	9,289	-44.1		24	18.6
250	28	10,502	-51.5		25	19.6
200	28	11,934	-47.1		27	21.7
175	28	12,776	-48.7		27	18.4
150	28	13,743	-49.5		26	18.4
125	28	14,879	-51.6		26	17.2
100	29	16,254	-54.2		26	14.7
80	27	17,617	-65.0		26	8.4
70	27	18,443	-65.8		26	6.9
60	26	19,370	-64.8		26	4.4
50	23	20,490	-62.1		36	.9
40	22	21,880	-59.1		06	4.4
30	23	23,697	-56.9		06	7.0
25	21	24,854	-55.2		07	8.6
20	11	26,285	-53.6		08	11.4
15	11	28,156	-50.1		07	11.7
10	9	30,840	-45.9			
7						

SAN JUAN, P. R.
1011 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1000	29	156	25.5	17.4	10	5.1
950	29	600	18.3	14.4	[illegible]	7.1
900	29	1,062	14.1	10.7	10	8.3
850	29	1,546	11.7	7.4	10	7.7
800	29	2,049	8.6	[illegible]	09	7.4
750	29	2,582	6.6	-22.4	09	6.5
700	29	3,147	5.6	-11.7	09	5.3
650	29	3,750	3.3	-15.7	09	4.1
600	29	4,392	-.7	-20.2	08	2.8
550	29	5,082	-4.6	-24.3	03	2.3
500	29	5,826	-9.7	-28.7	35	3.5
450	29	6630	-15.2	-33.1	34	6.4
400	29	7,509	-21.7	-38.4	32	8.4
350	29	8,481	-28.8	-44.7	31	13.3
300	28	9,567	-35.6	-49.7	29	14.4
250	28	10,816	-43.5		29	15.7
200	28	12,284	-53.5		29	16.1
175	28	13,132	-59.2		29	14.4
150	28	14,086	-65.4		29	11.4
125	28	15,178	-71.2		30	13.4
100	28	16,481	-76.9		31	7.5
80	28	17,763	-74.9		31	3.8
70	28	18,535	-74.7		31	2.4
60	28	19,439	-71.3		33	1.9
50	28	20,533	-65.1		35	2.4
40	28	21,908	-60.5		33	4.0
30	28	23,719	-56.0		33	6.5
25	28	24,883	-53.3		30	7.9
20	28	26,332	-49.8		26	1.5
15	28	28,228	-47.0		24	3.0
10	28	30,949	-42.5		24	3.1
7	10	33,346	-39.5			

SALT LAKE MUNICIPAL AP
990 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	27	874	-9.4	[illegible]	[illegible]	[illegible]
1000						
950						
900						
850	29	1,366	-9.4	[illegible]	[illegible]	[illegible]
800	29	1,848	[illegible]	[illegible]	[illegible]	[illegible]
750	29	2,324	[illegible]	[illegible]	[illegible]	[illegible]
700	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
650	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
600	29	4,002	[illegible]	[illegible]	[illegible]	[illegible]
550	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
350	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300	27	6,810	-51.0		[illegible]	[illegible]
250	27	7,982	-54.4		[illegible]	[illegible]
200	27	11,414	-53.0		[illegible]	[illegible]
175	25	12,269	-53.1		[illegible]	[illegible]
150	25	13,264	-53.1		[illegible]	[illegible]
125	24	14,443	-53.9		[illegible]	[illegible]
100	24	15,873	-55.0		[illegible]	[illegible]
80	24	17,297	-55.0		[illegible]	[illegible]
70	24	18,149	-53.9		[illegible]	[illegible]
60	24	19,130	-50.9		[illegible]	[illegible]
50	24	[illegible]	-50.4		[illegible]	[illegible]
40	24	21,709	-50.0		[illegible]	[illegible]
30	24	[illegible]	-54.8		[illegible]	[illegible]
25	21	[illegible]	-54.4		[illegible]	[illegible]
20	20	26,172	-53.9		[illegible]	[illegible]
15	20	28,028	-53.4		[illegible]	[illegible]
10	17	[illegible]	-49.8		[illegible]	[illegible]
7	11	33,098	-45.3		[illegible]	[illegible]

SPOKANE, WA
930 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	7.0	-1.9	-5.5	19	2.9
1000						
950						
900	29	984	-1.3	-6.4	20	6.0
850	29	1,439	-2.1	-10.5	23	8.3
800	29	1,920	-4.2	-14.0	24	8.2
750	29	2,416	-6.5	-16.3	25	8.5
700	29	2,962	-10.1	-18.7	25	9.8
650	29	3,529	-13.8	-22.1	26	11.0
600	29	4,133	-17.8	-25.6	26	12.8
550	29	4,779	-22.0	-28.9	26	14.8
500	29	5,474	-26.3	-33.5	27	15.9
450	28	6,231	-31.5	-37.5	27	18.2
400	28	7,055	-37.3	-41.2	27	20.6
350	28	7,968	-43.5	-44.6	27	24.2
300	28	8,986	-50.1		28	27.0
250	28	10,164	-54.7		28	28.7
200	28	11,586	-54.7		28	25.1
175	28	12,444	-53.7		29	22.5
150	28	13,435	-53.3		29	22.0
125	28	14,608	-53.8		28	19.0
100	28	16,034	-56.2		29	17.5
80	28	17,454	-56.4		28	15.9
70	28	18,298	-56.0		29	14.9
60	28	19,279	-55.2		29	12.3
50	28	20,445	-54.6		30	9.5
40	27	21,881	-54.9		32	8.7
30	18	23,712	-54.6		33	9.1
25	14	24,900	-54.1		35	9.1
20	14	26,340	-53.2		36	8.6
15	11	28,203	-52.6		01	11.6
10						
7						

TAMPA BAY, FL
1020 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	8	12.1	10.4	04	1.0
1000	29	180	15.4	10.1	08	1.6
950	29	614	13.8	6.1	12	1.0
900	29	1,068	12.1	-.3	34	.3
850	29	1,546	10.9	-6.2	30	1.5
800	29	2,050	9.0	-8.0	29	2.4
750	29	2,581	6.3	-11.6	17	3.5
700	29	3,144	3.3	-15.2	27	4.8
650	29	3,741	.1	-18.7	27	6.9
600	29	4,378	-3.4	-21.8	27	8.6
550	29	5,060	-7.8	-26.3	27	10.3
500	29	5,793	-13.2	-30.5	27	12.3
450	29	6,587	-19.1	-35.2	27	13.8
400	29	7,452	-25.9	-40.2	27	15.7
350	29	8,407	-33.3	-46.8	27	18.5
300	28	9,468	-41.8	-53.1	27	21.2
250	28	10,681	-50.1		27	26.1
200	28	12,117	-56.6		27	31.1
175	28	12,959	-59.1		26	32.7
150	28	13,919	-62.2		27	32.4
125	28	15,037	-66.7		27	28.1
100	28	16,372	-70.7		27	22.0
80	28	17,689	-71.7		27	14.2
70	28	18,479	-70.7		28	9.7
60	28	19,196	-68.9		28	7.4
50	28	20,498	-64.4		31	3.0
40	27	21,878	-60.7		35	1.2
30	23	23,683	-56.7		04	3.6
25	24	24,843	-55.0		07	2.3
20	22	26,277	-52.6		05	1.9
15	20	28,150	-49.0		28	4.0
10	12	30,849	-42.1		26	15.3
7	6	33,281	-36.2			

TOPEKA, KS
983 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	268	1.0	-3.5	03	.5
1000						
950						
900	29	543	4.2	-4.7	24	2.6
850	29	985	5.5	-7.1	26	4.1
800	29	1,452	4.6	-10.1	27	8.8
750	29	1,944	2.9	-11.9	28	10.1
700	29	2,465	.6	-14.6	28	11.7
650	29	3,015	-2.5	-18.9	28	13.1
600	29	3,599	-6.4	-21.1	27	14.7
550	29	4,223	-10.6	-23.5	27	17.2
500	29	4,883	-15.9	-28.0	27	18.8
450	29	5,595	-20.9	-32.7	27	20.7
400	29	6,365	-26.1	-38.4	28	23.2
350	29	7,207	-32.4	-43.9	28	26.3
300	28	8,138	-39.0	-46.7	27	28.9
250	28	9,174	-47.1		27	31.0
200	28	10,362	-53.9		27	34.2
175	27	11,782	-56.4		28	32.3
150	27	12,631	-56.5		27	30.7
125	27	13,607	-57.4		28	31.2
100	27	14,756	-58.7		28	27.0
80	27	16,150	-60.3		28	20.2
70	28	17,540	-61.7		28	14.2
60	28	18,367	-61.9		29	11.6
50	24	19,329	-61.1		29	9.3
40	24	20,469	-58.9		32	4.8
30	24	21,873	-57.6		35	3.1
25	22	23,701	-55.5		02	5.4
20	22	24,864	-55.0		03	6.0
15	22	26,304	-53.5		04	7.4
10	11	28,157	-52.3		36	7.5
7						

TRUK, CAROLINE IS.
1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	2	27.7	23.2	06	4.1
1000	29	89	26.5	21.8	06	4.8
950	29	541	23.0	19.4	07	6.8
900	29	1,012	20.2	15.[illegible]	07	6.5
850	29	1,504	17.2	11.0	08	5.5
800	29	2,020	15.4	4.9	9	4.7
750	29	2,566	13.5	-1.3	09	4.5
700	29	3,144	10.3	-4.9	08	4.0
650	29	3,757	6.8	-7.4	08	5.6
600	29	4,410	3.3	-11.8	08	6.9
550	29	5,111	-.7	-15.4	08	6.6
500	29	5,866	-5.0	-22.4	09	6.2
450	29	6,687	-10.1	-23.9	09	6.5
400	28	7,586	-15.4	-29.7	09	6.7
350	28	8,585	-22.0	-35.9	08	6.7
300	28	9,697	-30.7	-43.1	09	6.2
250	28	10,964	-41.1	-50.0	11	6.4
200	28	12,440	-53.7		12	8.3
175	28	13,285	-60.6		12	8.9
150	28	14,227	-68.3		11	10.1
125	28	15,299	-76.5		10	11.6
100	28	16,564	-81.2		09	11.7
80	28	17,826	-78.1		08	3.8
70	28	18,602	-71.4		29	1.7
60	28	19,523	-67.0		28	6.4
50	28	20,536	-62.7		27	9.3
40	28	22,022	-59.8		27	11.4
30	28	23,833	-56.8		27	11.5
25	27	24,994	-54.1		27	11.8
20	27	26,438	-50.8		26	9.2
15	23	28,314	-49.4		26	3.8
10	9	31,005	-44.1			
7						

TRUK
424 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	784	9.4	[illegible]	[illegible]	[illegible]
1000						
950						
900						
850	29	1,334	12.6	-3.3	[illegible]	[illegible]
800	29	1,808	10.0	-5.6	[illegible]	[illegible]
750	29	2,309	8.	-7.7	[illegible]	[illegible]
700	29	2,838	+6.	-11.8	[illegible]	[illegible]
650	29	3,394	3.9	-13.4	[illegible]	[illegible]
600	29	3,987	-2.9	-1.6.6	[illegible]	[illegible]
550	29	4,617	-6.0	-17.[illegible]	[illegible]	[illegible]
500	29	5,284	-10.7	-3.2.2	[illegible]	[illegible]
450	29	6,000	-16.4	-36.2	[illegible]	[illegible]
400	29	6,770	-21.[illegible]	-42.[illegible]	[illegible]	[illegible]
350	29	7,614	-30.[illegible]	-46.0	[illegible]	[illegible]
300	29	8,554	-40.[illegible]	[illegible]	[illegible]	[illegible]
250	29	9,622	-44.0	[illegible]	[illegible]	[illegible]
200	29	10,844	-52.[illegible]	[illegible]	[illegible]	[illegible]
175	29	11,508	-53.0	[illegible]	[illegible]	[illegible]
150	29	12,252	-53.[illegible]	[illegible]	[illegible]	[illegible]
125	29	13,092	-54.[illegible]	[illegible]	[illegible]	[illegible]
100	29	14,060	-55.[illegible]	[illegible]	[illegible]	[illegible]
80	29	15,000	-56.[illegible]	[illegible]	[illegible]	[illegible]
70	29	15,540	-56.[illegible]	[illegible]	[illegible]	[illegible]
60	29	16,140	-56.[illegible]	[illegible]	[illegible]	[illegible]
50	29	16,810	-56.[illegible]	[illegible]	[illegible]	[illegible]
40	29	17,580	-56.[illegible]	[illegible]	[illegible]	[illegible]
30	29	18,530	-56.[illegible]	[illegible]	[illegible]	[illegible]
25	29	19,120	-56.[illegible]	[illegible]	[illegible]	[illegible]
20	29	19,860	-55.[illegible]	[illegible]	[illegible]	[illegible]
15	29	20,810	-55.[illegible]	[illegible]	[illegible]	[illegible]
10	29	22,190	-54.[illegible]	[illegible]	[illegible]	[illegible]
7	29	23,629	-50.[illegible]	[illegible]	[illegible]	[illegible]

VANDENBERG AFB, CA
1006 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	[illegible]	8.3	5.8	04	1.2
1000	29	166	10.6	4.3	02	2.3
950	29	580	10.7	.1	03	3.7
900	29	1,018	8.5	-2.8	01	2.0
850	29	1,499	6.2	-7.8	32	2.1
800	29	1,994	3.9	-11.5	29	2.3
750	29	2,516	1.7	-14.6	28	2.8
700	29	3,069	-1.6	-17.0	27	3.3
650	29	3,655	-4.9	-20.6	28	4.2
600	29	4,280	-8.9	-24.1	28	5.6
550	29	4,947	-13.8	-28.2	28	6.6
500	29	5,664	-18.9	-32.6	27	7.9
450	29	6,440	-24.5	-38.1	27	9.3
400	29	7,287	-30.8	-43.1	27	10.4
350	29	8,224	-37.6	-46.8	27	11.3
300	29	9,268	-45.2		27	13.4
250	29	10,467	-51.8		27	15.0
200	29	11,897	-56.8		27	17.1
175	29	12,743	-57.0		27	14.9
150	29	13,717	-58.1		28	14.4
125	29	14,861	-60.4		27	12.3
100	28	16,243	-63.4		27	9.0
80	28	17,612	-64.1		26	6.4
70	28	18,436	-62.8		26	4.3
60	28	19,388	-63.0		27	2.5
50	28	20,515	-61.1		35	1.3
40	28	21,907	-59.3		04	4.2
30	21	23,732	-56.0		07	7.1
25	20	24,898	-54.5		07	8.4
20	19	26,418	-53.1		07	8.6
15	18	28,183	-51.0		07	9.8
10	17	30,833	-47.5		07	9.8
7	14	33,233	-43.7		05	7.6

VICTORIA, TX
1015 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	29	33	11.5	9.1	16	.8
1000	29	160	14.6	9.4	19	2.2
950	29	594	13.9	5.6	16	5.2
900	29	1,049	12.0	1.1	16	5.7
850	29	1,527	11.7	-3.3	12	5.8
800	29	2,033	10.2	-8.2	13	5.5
750	29	2,567	7.5	-12.1	15	5.5
700	29	3,131	4.1	-15.0	17	6.6
650	29	3,730	.3	-18.4	17	7.4
600	29	4,366	-3.7	-21.8	17	9.1
550	29	5,047	-8.6	-25.6	17	10.7
500	29	5,779	-13.9	-30.8	17	12.3
450	29	6,570	-19.7	-35.6	17	14.6
400	29	7,433	-26.3	-40.9	17	16.7
350	29	8,387	-33.6	-46.8	17	18.9
300	29	9,447	-42.1	-51.0	17	21.4
250	29	10,655	-51.6		17	23.7
200	29	12,076	-58.7		17	28.1
175	29	12,910	-61.1		16	29.1
150	29	13,868	-61.4		16	27.7
125	29	14,989	-65.3		16	23.8
100	28	16,338	-69.2		16	18.3
80	28	17,669	-70.1		17	12.8
70	28	18,463	-70.0		18	11.3
60	25	19,381	-68.3		19	5.6
50	24	20,480	-65.2		32	1.4
40	24	21,855	-60.8		03	1.7
30	23	23,661	-57.3		06	4.5
25	21	24,817	-55.6		07	3.7
20	19	26,246	-53.2		07	4.4
15	18	28,119	-50.2		05	2.1
10	12	30,802	-44.8			
7						

WAKE IS., PACIFIC AREA
1014 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	28	5	24.4	20.6	08	4.8
1000	28	123	23.7	18.7	07	5.5
950	28	570	19.8	16.6	07	4.2
900	28	1,034	16.6	12.8	07	4.9
850	28	1,520	13.7	10.0	07	2.3
800	28	2,030	11.6	4.4	36	.6
750	28	2,568	10.0	-3.9	30	2.3
700	28	3,139	7.2	-8.6	28	3.4
650	28	3,745	4.0	-12.5	27	4.8
600	28	4,392	.7	-17.4	27	6.5
550	28	5,085	-3.6	-20.8	28	8.0
500	28	5,832	-7.9	-25.3	28	9.9
450	28	6,645	-12.5	-29.2	28	12.5
400	28	7,535	-17.7	-33.9	27	15.5
350	28	8,525	-23.9	-39.2	27	17.5
300	28	9,631	-31.5	-46.3	28	19.0
250	28	10,894	-41.8	-53.7	28	21.1
200	28	12,368	-53.2		28	19.1
175	28	13,216	-59.8		28	18.5
150	28	14,162	-66.9		28	16.4
125	28	15,243	-74.6		28	13.8
100	28	16,532	-79.6		28	6.8
80	28	17,780	-80.3		30	1.4
70	28	18,546	-76.6		09	1.6
60	28	19,444	-71.2		11	1.7
50	28	20,488	-66.3		12	1.8
40	28	21,853	-62.5	

RAWINSONDE DATA

Average monthly values

FEBRUARY 1976

Standard pressure surface mb	MEDFORD, OR 1 12 mb					MINNEAPOLIS, MN 850 mb						MISSOULA, MT 883 mb						YAKUTAT, AK 1004 mb						YAP, CAROLINE IS. 1004 mb					
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	26	[illegible]	8.2	6.5	03	4.7	29	1,342	4.7	-4.2	18	4.1	29	1,497	-.5	-6.1	17	1.2	29	[illegible]	-4.7	-7.4	09	2.2	27	14	27.3	22.9	07	3.5
1,000	26	[illegible]	12.0	8.1	26	1.8													18	122	-.7	-5.9	10	1.9	27	85	26.1	21.0	07	4.5
925	26	0,015	12.0	1.7	27	4.7													29	456	-2.7	-9.0	11	3.8	27	530	24.0	19.0	06	7.3
900	26	0,196	9.9	-2.2	27	4.1													29	883	-5.1	-11.2	14	2.9	27	1,008	19.8	15.4	07	7.2
850	26	1,530	8.7	-7.3	27	6.7	29	1,490	.8	-7.6	13	2.9	28	1,536	1.1	-7.4	17	1.0	29	1,330	-7.8	-14.6	17	2.6	27	1,497	18.7	11.7	07	7.2
800	26	2,000	7.2	-10.6	27	8.2	29	1,978	.0	-6.9	13	4.4	29	2,009	4.2	-7.7	23	4.0	29	1,799	-10.7	-17.6	19	2.5	27	2,013	14.7	6.6	07	5.7
700	26	3,009	4.9	-13.5	27	10.0	29	2,643	-2.8	-11.5	14	6.6	29	2,532	1.5	-10.9	23	5.9	29	2,292	-14.0	-21.5	22	2.8	27	2,558	12.7	-.2	07	4.7
600	26	4,127	1.4	-16.4	27	11.9	29	3,347	-5.6	-14.4	15	8.7	29	3,084	-1.7	-14.2	24	7.4	29	2,812	-17.7	-25.7	23	3.5	27	3,134	9.7	-4.1	07	3.3
500	26	5,387	-2.1	-19.7	27	13.4	29	3,614	-9.1	-18.4	16	10.1	29	3,670	-5.2	-17.7	24	8.6	29	3,363	-21.6	-30.0	24	4.1	27	3,740	6.6	-8.2	08	3.5
400	26	6,834	-6.0	-23.9	27	13.6	29	4,228	-12.9	-23.2	16	11.7	29	4,295	-8.8	-23.3	25	10.6	29	3,948	-25.3	-34.3	25	4.5	27	4,399	3.0	-11.3	09	4.6
300	26	8,617	-10.2	-28.4	27	15.1	29	4,888	-17.0	-27.2	17	13.4	29	4,963	-13.3	-26.9	26	12.1	29	4,575	-29.4	-39.1	25	5.5	27	5,099	-.9	-16.2	09	5.7
250	19	9,744	-15.4	-34.4	27	17.1	29	5,596	-22.0	-32.1	16	13.5	29	5,681	-18.6	-31.5	26	14.0	29	5,249	-34.2	-41.7	25	6.5	27	5,853	-5.3	-19.5	09	6.2
200	26	10,911	-20.9	-39.7	27	19.7	29	6,362	-27.8	-37.1	17	15.6	29	6,458	-24.0	-38.2	26	16.8	29	5,978	-39.2	-41.5	26	7.5	27	6,674	-9.8	-24.6	08	7.1
150	26	12,331	-27.6	-44.4	27	21.2	29	7,198	-33.9	-44.8	16	17.2	29	7,307	-30.2	-42.0	26	20.5	29	6,776	-44.7	-41.4	27	7.6	27	7,573	-15.6	-30.2	06	7.5
100	26	14,348	-35.0	-40.5	27	23.2	29	8,123	-40.6	-44.7	17	19.7	29	8,246	-37.4	-47.2	26	22.1	29	7,603	-49.2		27	9.1	27	8,570	-22.3	-36.4	07	6.8
70	26	15,938	-43.4		27	25.8	29	9,154	-47.0		18	21.2	29	9,290	-45.4		26	22.4	29	8,662	-53.0		27	9.9	27	9,680	-31.1	-44.8	09	6.1
50	26	17,858	-52.2		27	30.0	28	10,337	-54.6		18	24.2	29	10,484	-53.0		26	25.5	29	9,937	-53.1		27	13.3	27	10,945	-41.0		10	6.4
30	20	20,298	-57.5		27	31.4	27	11,781	-56.6		18	24.3	29	11,907	-57.5		26	25.4	28	11,283	-52.1		28	15.2	27	12,419	-53.0		12	9.2
25	19	21,558	-59.1		27	31.7	27	12,348	-58.0		18	28.4	29	12,747	-58.9		27	24.3	28	12,151	-51.0		28	15.6	27	13,266	-60.5		12	10.4
20	19	23,001	-61.1		27	29.6	25	13,597	-56.4		17	17.4	29	13,716	-59.1		27	21.3	28	13,154	-50.9		28	17.1	27	14,209	-68.4		12	11.2
15	18	24,744	-64.4		27	28.9	24	14,760	-57.3		16	10.1	29	14,853	-61.4		27	19.0	26	14,348	-51.0		28	18.4	27	15,279	-75.9		11	11.2
10	17	26,760	-67.7		27	22.6	23	16,169	-60.2		17	11.4	29	16,228	-64.1		27	15.3	26	15,800	-50.9		28	19.8	26	16,545	-81.1		10	10.7
8	17	27,744	-68.6		28	15.8	23	17,556	-60.8		19	8.6	27	17,589	-65.2		27	11.4	26	17,252	-51.4		28	19.0	26	17,804	-78.6		09	4.6
7	17	28,744	-67.6		28	11.5	22	18,388	-60.6		14	5.7	27	18,494	-64.2		27	9.1	26	18,119	-51.3		28	19.2	26	18,578	-72.7		07	1.9
6	17	29,974	-66.3		29	7.7	21	19,348	-59.6		10	4.8	24	19,353	-63.4		28	4.8	26	19,121	-51.3		28	20.6	25	19,500	-66.3		28	3.0
5	14	31,489	-62.9		29	4.4	21	20,491	-59.0		13	3.7	25	20,476	-61.6		32	2.1	26	20,306	-51.3		29	20.0	25	20,614	-63.1		28	7.5
4	14	[illegible]	-60.1		33	3.0	20	21,896	-57.1		16	3.7	23	21,866	-59.3		06	3.5	25	21,772	-50.2		29	21.7	24	22,001	-59.8		28	8.9
3	11	33,855	-56.3		32	2.8	19	23,723	-55.4		04	5.9	22	23,680	-56.7		06	6.3	22	23,632	-51.2		29	22.9	23	23,822	-54.8		26	8.7
25	4	24,846	-55.2		06	1.7	19	24,889	-54.4		05	6.1	20	24,842	-55.2		06	7.4	22	24,819	-50.9		29	23.0	22	24,997	-53.3		26	8.0
20	1	26,283	-53.1		32	.4	17	26,319	-52.8		05	7.1	[illegible]	26,272	-53.7		07	9.5	22	26,272	-50.6		29	21.4	21	26,445	-50.8		26	6.5
15	21	28,146	-49.5		29	2.1	14	28,170	-52.1		04	8.5	19	28,129	-51.6		06	9.1	20	28,136	-49.5		30	24.5	21	28,327	-48.0		22	1.7
10	3	30,817	-45.0		28	7.5	8	30,809	-48.0										13	30,785	-45.7				14	31,035	-42.0			

Standard pressure surface mb	YUCCA FLAT, NV 882 mb					
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	20	[illegible]	.9	-4.6	24	.8
1,000						
925						
900						
850	19	1,496	5.7	-6.2	24	1.1
800	20	1,998	2.9	-8.3	23	2.8
700	20	2,959	-.1	-13.7	21	3.0
600	20	3,999	-2.6	-17.0	23	3.8
500	20	5,044	-6.1	-21.1	25	4.4
400	20	6,360	-10.1	-25.4	24	5.4
300	20	8,031	-14.7	-27.8	27	7.5
250	20	9,040	-19.8	-31.6	27	9.2
200	20	10,419	-25.4	-37.8	27	11.8
150	20	12,263	-31.6	-43.4	26	12.2
100	19	14,196	-38.8	-47.7	27	13.4
70	19	15,835	-46.3		27	17.3
50	20	17,348	-52.5		27	20.7
30	20	19,155	-56.9		27	22.8
25	19	20,189	-57.4		27	23.4
20	19	21,321	-57.8		27	18.9
15	20	22,819	-54.4		27	16.0
10	20	24,704	-50.5		27	12.7
8	19	25,879	-49.6		28	8.9
7	17	26,407	-48.7		27	7.3
6	14	27,003	-46.6		29	3.6
5	14	27,501	-59.0		01	1.0
4	13	28,900	-57.1		36	4.9
3	11	30,332	-55.2		05	7.6
25	10	31,895	-54.3		07	9.2
20	19	33,328	-53.1		07	11.2
15	13	35,190	-50.7		07	14.2
10	4	37,931	-45.3			

SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun.

Day	A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Average	1.29	1.64	2.01	1.67	*	1.67	1.98	2.33	1.19
1	1.04	1.15	1.25	1.29	1.46	1.37	1.21	1.07	.91
2	---	---	---	---	(1.30)	(1.17)	(.95)	(.81)	---
3	1.00	1.10	1.23	1.37	1.41	---	---	---	---
4	---	---	---	---	(1.27)	---	1.03	---	---
7	---	---	---	---	1.35	1.25	1.10	1.01	.89
8	.95	1.08	1.16	---	---	1.11	---	---	.90
9	---	---	---	1.28	1.31	---	---	---	---
11	1.01	---	---	1.27	---	---	---	---	---
12	.91	1.01	1.14	1.29	1.39	1.31	1.14	1.04	.90
13	---	---	1.28	---	---	---	---	---	---
14	---	---	---	---	(1.43)	(1.30)	1.17	1.05	.95
15	1.08	(1.04)	(1.15)	---	(1.41)	---	---	---	---
16	.91	1.05	1.17	1.30	1.42	(1.33)	---	---	---
17	.96	1.06	1.19	---	(1.43)	(1.24)	---	(.91)	(.76)
18	1.01	1.12	1.20	(1.31)	1.42	1.32	(1.13)	(.99)	(.81)
19	1.00	1.10	1.17	1.34	1.43	1.34	1.12	1.05	.98
21	1.02	1.12	1.19	1.34	---	---	---	---	---
24	(.83)	(.92)	---	1.28	1.40	(1.28)	1.11	---	.96
25	1.03	1.12	1.25	1.40	1.50	1.40	1.25	1.11	1.04
27	---	---	(1.26)	(1.39)	(1.49)	---	---	---	---
31	---	1.09	(1.16)	1.33	1.41	D(1.21)	D(.99)	---	---
25	.94	1.04	1.16	1.31	1.40	1.32	1.15	.99	.92
26	.96	1.08	1.19	1.36	1.36	1.32	---	1.01	.90
28	.99	1.17	1.28	1.42	1.51	---	---	---	---
29	1.04	1.16	1.26	1.38	1.50	---	---	---	---
Average	.99	1.10	1.21	1.34	1.42	1.31	1.11	1.01	.91

Day	A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Average	1.83	2.32	2.84	1.46	*	1.46	2.94	3.92	4.89

Day	A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Average	1.69	2.11	2.51	1.88	*	1.88	2.81	3.75	4.69
1	---	---	---	---	---	---	---	S 1.04	S .96
2	S .95	S 1.06	---	---	---	---	S 1.18	S 1.07	S .97
6	S .85	S .99	S 1.14	S 1.32	S 1.32	S 1.29	M 1.14	M 1.01	M .89
8	S .87	S .97	M 1.12	M 1.28	M 1.29	---	S 1.14	S 1.02	M .89
11	S .92	S 1.03	S 1.19	S 1.27	---	---	M 1.07	M .99	---
12	---	---	---	---	---	---	M .96	M .83	M .72
22	S .93	S 1.04	M 1.15	---	---	---	---	---	---
23	S .68	S .82	S .95	M 1.18	M 1.28	M 1.09	M .94	M .82	M .71
25	S .68	S .82	S .90	S 1.20	---	M 1.11	---	---	---
26	.72	S .85	M 1.00	S 1.25	M 1.33	M 1.22	M 1.01	M .89	M .78
27	---	---	---	P .99	H 1.12	---	---	---	---
Average	.83	.96	1.08	1.21	1.24	1.18	1.07	.95	.86

Day	A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Average	1.78	2.32	2.85	1.41	*	1.41	2.87	3.82	4.78
3	---	---	---	---	---	1.26	1.10	---	---
7	1.00	1.10	1.20	1.30	---	1.30	---	---	---
8	.95	1.05	1.18	1.29	1.38	1.34	1.18	1.01	.93
11	.93	1.02	(1.16)	---	1.33	1.19	.81	---	---
12	HS .91	HS1.05	HS1.17	1.34	1.38	1.24	1.00	.82	---
13	---	---	1.13	1.27	1.37	1.31	.92	.68	.49
14	.97	1.08	---	---	---	---	---	---	---
18	HS .91	---	1.12	---	(1.36)	---	---	---	---
19	.83	.92	1.02	1.22	HS1.30	HS1.24	HS1.05	HS .92	HS .81
22	1.02	1.08	1.18	---	1.35	1.28	1.14	1.03	.91
23	.93	1.04	1.16	---	1.40	---	1.12	1.00	.90
24	.95	1.60	1.21	1.36	1.44	1.36	1.12	1.02	.95
28	.74	.90	---	---	---	---	---	---	---
Average	.92	1.08	1.19	1.30	1.40	1.32	1.08	.96	.82

Day	A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Average	1.96	2.49	2.91	1.41	*	1.41	2.89	3.96	4.96
1	1.27	1.37	1.48	1.60	1.69	1.55	1.37	1.14	---
2	1.25	1.33	1.44	1.56	1.67	1.55	1.43	1.33	1.25
3	---	---	1.39	---	1.63	---	---	---	---
4	---	---	---	---	---	1.54	1.48	1.43	1.40
9	1.23	1.31	1.41	1.52	1.62	1.51	1.40	1.30	1.22
12	1.25	1.33	1.42	1.53	1.62	1.51	1.39	1.30	1.22
13	1.20	1.29	1.38	1.51	1.63	1.52	1.41	1.30	1.22
15	---	---	---	---	---	1.53	1.41	---	---
16	---	---	---	---	---	1.46	1.35	1.24	1.16
17	1.17	1.26	1.36	---	---	1.40	1.29	1.20	1.13
18	1.24	1.33	1.43	1.55	1.67	1.54	1.43	1.33	1.25
19	1.26	1.35	1.44	---	---	---	---	---	---
20	1.29	1.36	1.45	1.50	1.63	---	---	---	---
21	---	---	---	---	---	1.52	---	---	---
22	1.30	1.37	1.47	1.58	---	---	---	---	---
25	1.28	1.36	1.45	1.56	---	---	---	---	---
28	1.17	1.25	1.35	1.47	---	---	---	---	---
29	1.20	1.28	1.37	1.48	---	---	---	---	---
Average	1.24	1.32	1.42	1.54	1.64	1.51	1.39	1.28	1.20

Day	A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Average	1.64	2.21	2.78	1.46	*	1.46	2.78	3.91	4.64
1	1.02	1.12	1.24	1.39	1.46	1.39	1.22	---	---
2	1.02	1.12	1.23	1.38	1.48	1.34	1.16	1.00	.89
3	---	---	---	---	---	---	---	1.02	---
4	---	---	---	---	---	---	---	1.02	.91
9	.82	.95	---	---	---	---	---	---	---
12	---	.90	---	1.23	1.37	1.28	1.09	.99	.92
13	.92	1.02	1.13	---	---	1.33	1.19	1.08	.98
14	---	1.01	1.14	1.33	1.46	1.30	1.13	1.01	.93
15	.91	---	---	---	1.41	1.29	1.18	1.06	.95
16	---	---	---	1.23	1.40	1.25	1.14	.99	.88
17	.87	.97	1.16	1.31	1.43	1.31	1.17	1.03	.94
18	---	---	1.20	1.36	1.47	1.34	1.16	1.08	.99
19	.89	1.08	1.20	1.35	1.46	1.37	1.23	1.11	1.01
20	.87	.98	1.16	1.36	1.48	1.34	1.15	1.02	.92
21	1.00	1.10	1.22	1.39	1.51	1.38	1.24	1.13	1.01
22	1.03	1.13	1.25	1.41	1.53	1.38	1.25	1.14	1.04
23	1.00	1.15	1.28	1.45	1.53	---	---	---	---
25	.98	1.07	1.18	1.35	1.50	1.34	1.18	1.05	.96
26	---	---	1.20	1.37	1.51	1.35	1.16	1.02	.95
28	.93	1.00	1.12	1.31	1.44	---	---	---	.93
29	.91	1.05	1.19	1.35	1.47	---	---	---	---
Average	.94	1.04	1.20	1.37	1.49	1.36	1.19	1.07	.96

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

FEBRUARY 1976

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
ALBUQUERQUE NM	330	339	342	---	211	274	395	354	253	130	326	383	283	380	344	361	362	415	---	---	419	447	439	434	445	---	---	451	427			35[illegible]
BISMARCK ND	80	142	207	176	201	264	231	244	196	269	237	206	73	---	198	287*	96	123	113	304	283	317	313	248	279	177	341	114	263			214
CARIBOU ME	147	55	148	137	246	227	184	139	250	220	181	275	76	285	170	272	76	154	109	281	265	78	351	226	---	257	93	216	115			186
EL CENTRO CA	6	387	203	287	171	174	243	88	313	218	3[illegible]	413	115	355	410	427	417	429	441	464	473	458	516	472	474	468	453	466	376			339
EL PASO TX	371	406	372	93	343	381	402	378	208	95	295	335*	367*	457	456	457	474	406	474	474	485	496	5[illegible]	481	506	5[illegible]	452	473	515			404
ELY NV	299	315	329	148	219	205	268	187	141	363	373	32[illegible]	376	310	352	143	345	403	185	405	427	425	343	375	398	414	427	383	288			316
FRESNO CA	293	319	303	90	67	270	208	88	44	363	370	321	328	233	293	165	101	247	295	391	391	332	259	386	368	333	394	351	95			267
GRAND JUNCTION CO	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	396	303	42[illegible]	430	353	238	434	4[illegible]	428	31[illegible]	383			---
JOHNSTON I. PAC	476	471	464	430	172	512	523	500	482	545	455	463	547	519	562	551	528	537	493	456	484	476	542	481	537	529	568	535	251			503
LAS VEGAS NV	311	338	345	347	240	47	140	82	210	250	362	362	364	288	334	327	331	404	392	43[illegible]	42[illegible]	421	385	---	---	---	---	411	409			319
MADISON WI	242	271	124	167	179	286	25	284	170	158	288	282	18[illegible]	282	274	82	96	128	195	116	50	279	360	326	337	362	335	246	158			226
MIAMI FL	231	442	419	381	250	354	333	464	463	370	448	458*	428	396	347	481	373*	492*	443*	45[illegible]	355*	---	450*	134	93	320	277	380	---			368
NASHVILLE TN	169	150	266	281	69	42	371	370	377	---	235	373	202	201	326	61	91	---	406	376	83	2[illegible]5	425	431	279	427	445	395	348			274
OAK RIDGE TN	62	267	245	243	123	42	347	343	368	284	128	364	132	326	153	198	135	95	374	378	180	131	418	424	392	381	428	400	376			264
PAGE AZ	324	319	309	246	206	202	253	158	274	316	384	364	367	135	252	321	343	352	376	353	385	383	378	313	408	399	376	4[illegible]4	366			319
PHOENIX AZ	351	369	365	189	67	196	301	168	218	355	243	340	267	358	330	395	405	412	418	436	455	474	353	401	445	447	347	425	438			340
SEATTLE TACOMA WA	84	34	34	252	249	239	[illegible]7	65	196	77	45	192	143	111	35	249	118	131	66	207	2[illegible]0	166	263	65	188	229	59	175	288			153
STERLING VA	67	320	232	190	146	43	285	298	329	275	165	332	135	358	261	251	201	281	329	364	246	236	332	281	346	216	388	222	385			257
TALLAHASSEE FL	193	407	379	352	337	110	405	435	431	411	411	346	352	395	340	384	353	248	423	385	341	346	489	477	453	407	468	461	438			391

NET RADIATION

Net radiation in langleys per day [illegible] at Point Mugu

[illegible] 1970

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys	-	6	63	-	2	57	3	1	10	88	85	11	18	25	-	-	29	19	63	55	19	25	12	13	5	-	7	17	31	19	20	13			-	30

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals and hourly averages (0.28 - 0.32 μ) at [illegible] Point

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys																																

NO DATA RECEIVED

TOTAL OZONE DATA

[illegible] Total atmospheric ozone data are obtained from measurements made with a Dobson ozone spectrophotometer, and are applicable approximately to local apparent noon. The data are presented in the code [illegible] described in the August 1962 WMO circular entitled "PUBLICATION OF DATA FOR METEOROLOGICAL RESEARCH, WORLD OZONE DATA"

[illegible] World time - 8h

Station	Day of month																															Mean for month
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

NO DATA RECEIVED

REFERENCE NOTES

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES Dates in the table apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

+ And also on an earlier date or dates.
D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile data can be evaluated.

B Number of days maximum 21.1°C. or above for Alaskan Stations.
Y Peak Gust.
+ And also on an earlier date or dates.
U Indicates Urban site.
R Indicates Rural site.
Ø Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publication.

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters

$$F. = \frac{9}{5} \times C. + 32$$

1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

° Includes crop damage.
C Crop damage.
* No occurrence of storms or unusual weather phenomena reported.
@ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
Ø For breakdown of "All Others," and for detailed listing of other storms, see the Environmental Data Service, NOAA, monthly publication STORM DATA.
‡ No Storm Data Report received for this State.
· Report Incomplete.
+ Storm damages are placed in categories varying from 1 to 9 as follows:
1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5 Million
7 $5 Million to $50 Million
8 $50 Million to $500 Million
9 $500 Million to $5 Billion.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1 Flooding continued at the end of the month.
NA Not available.

FLOOD STAGE DATA:

Highest Stage Observed
1/ Continued at end of month
Highest Stage of Record
E Estimated
P Provisional (Flood Stage)
U Unknown

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
+ Observations for these stations are scheduled at 0000 G.C.T.
† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

REFERENCE NOTES

SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

()	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
*	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeter-minable
BD	Blowing Dust	F	Fog	I	Intense Haze-indeterminable		
BN	Blowing Sand	GF	Ground Fog	K	Smoke	N	Sand
D	Dust	H	Haze	KI	Intense Smoke	S	Slight Haze-indeter-minable
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		

SOLAR RADIATION TOTALS: Langley is the unit used to denote one gram calorie per square centimeter.

* Values with an asterisk are interpolated.
Data are only for those stations equipped with Eppley Model II sensors.

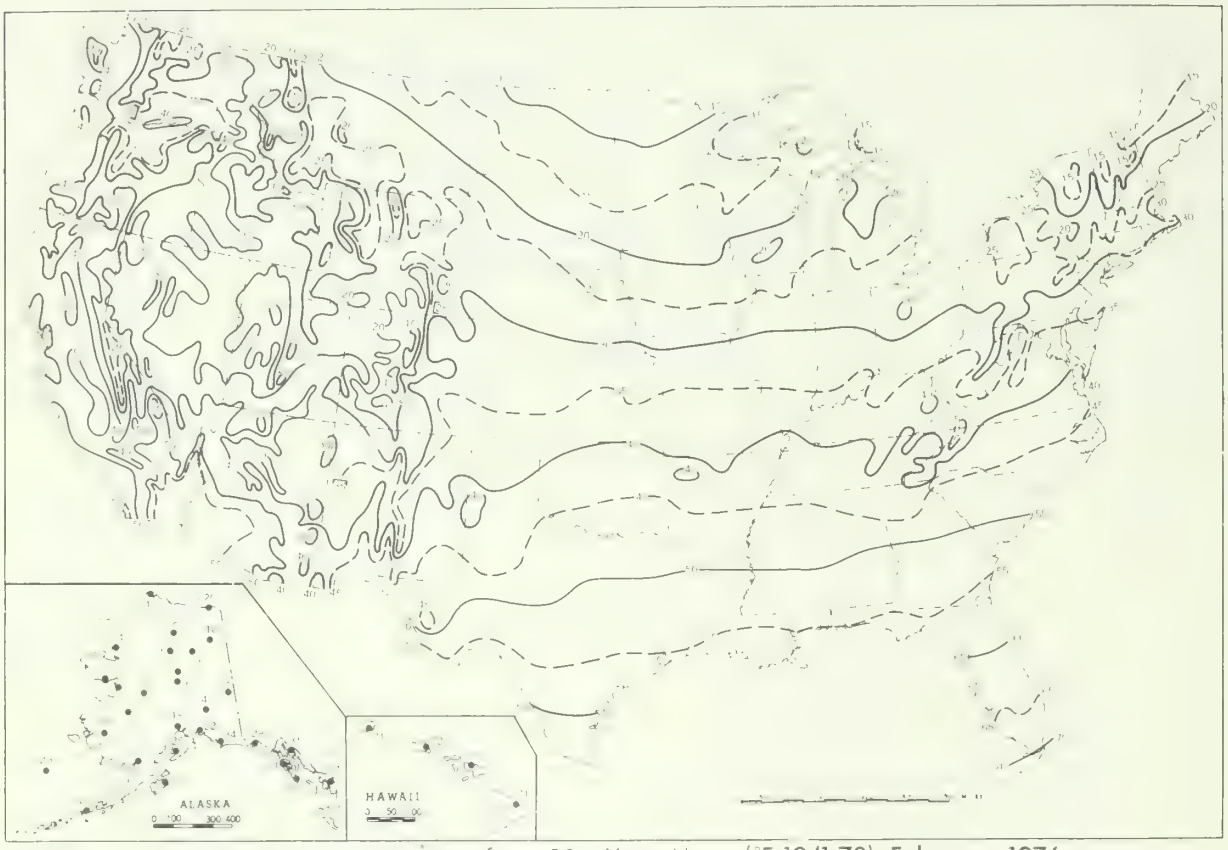
NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded $2\ 2\ 2$) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code $_{A}S$ designates the type of measurement made.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), February.



B. Temperature Departure from 30 - Year Mean (°F 1941-70), February 1976

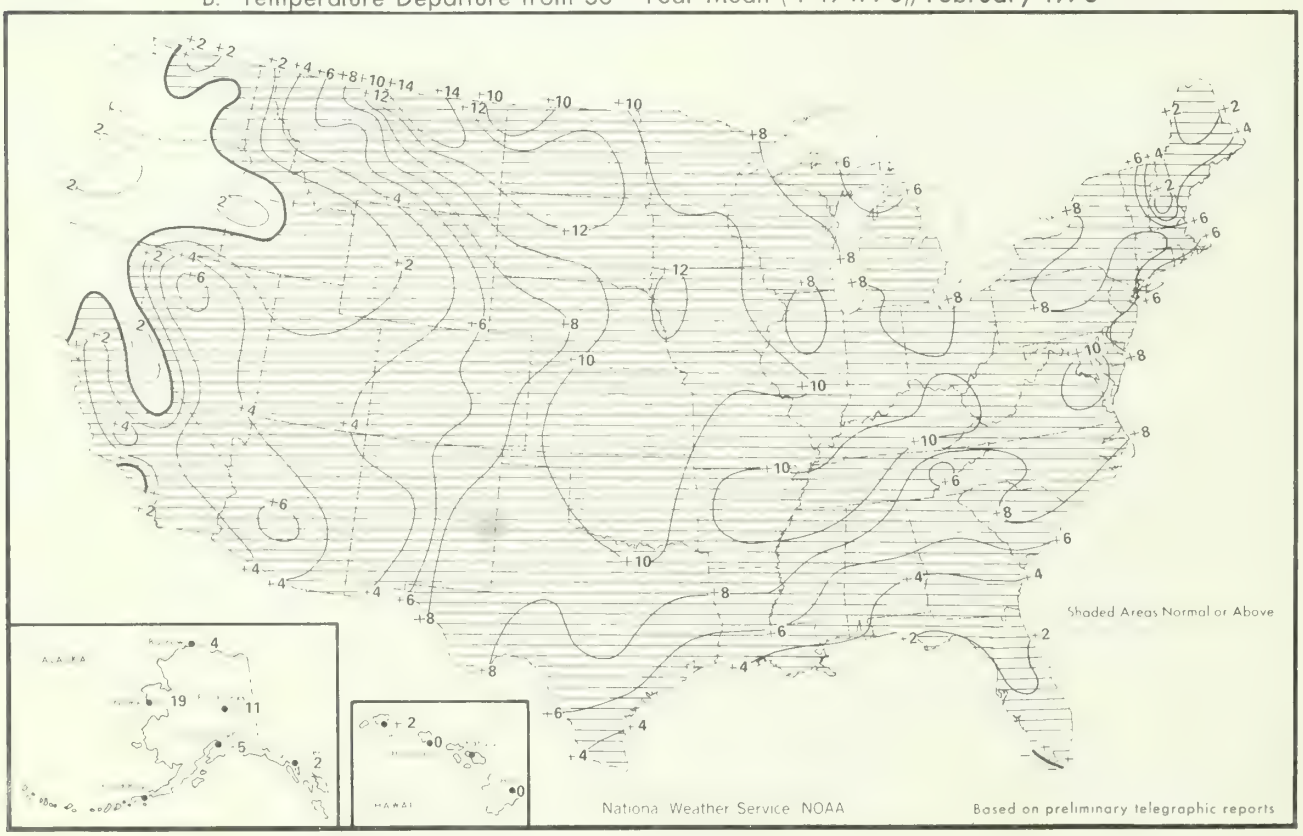
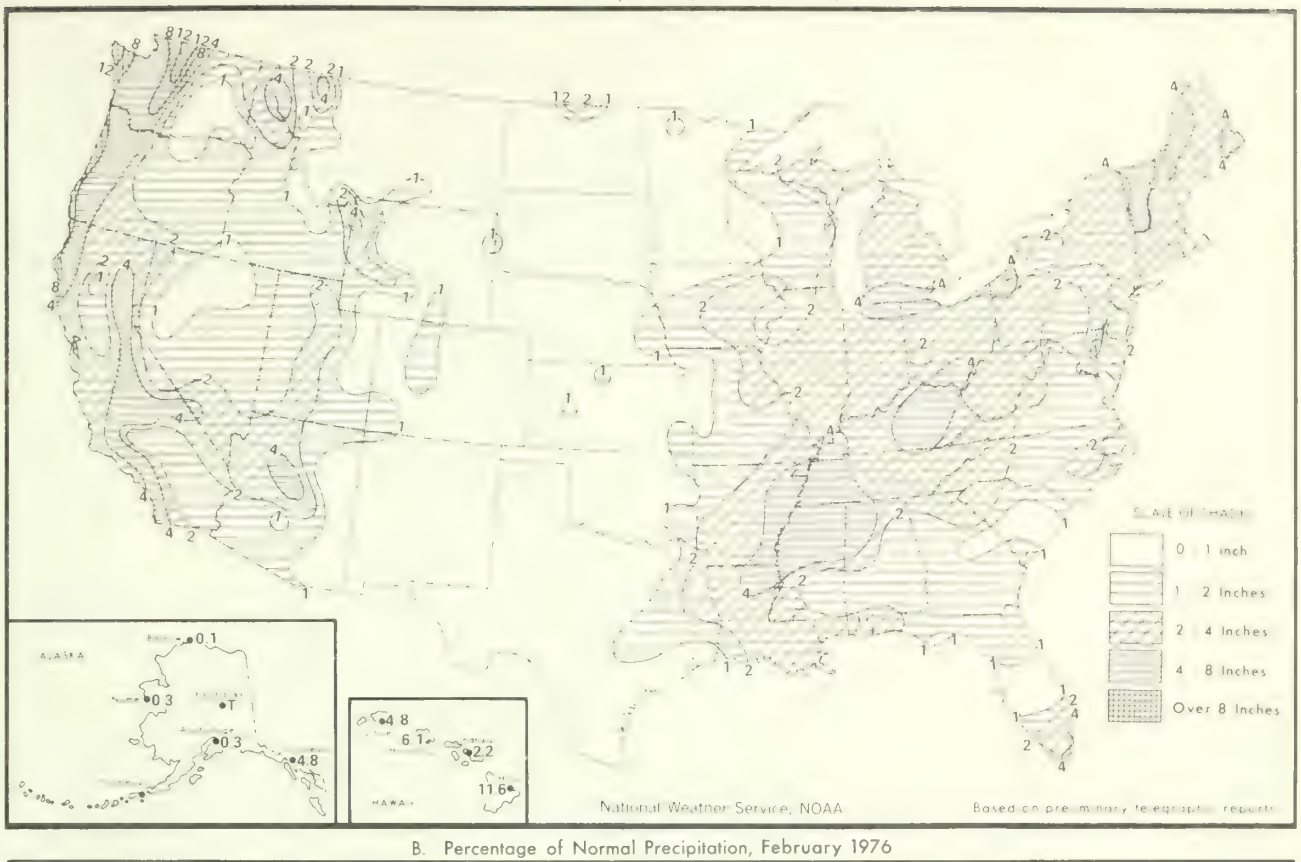


Chart II. A. Total Precipitation (Inches), February 1976



B. Percentage of Normal Precipitation, February 1976

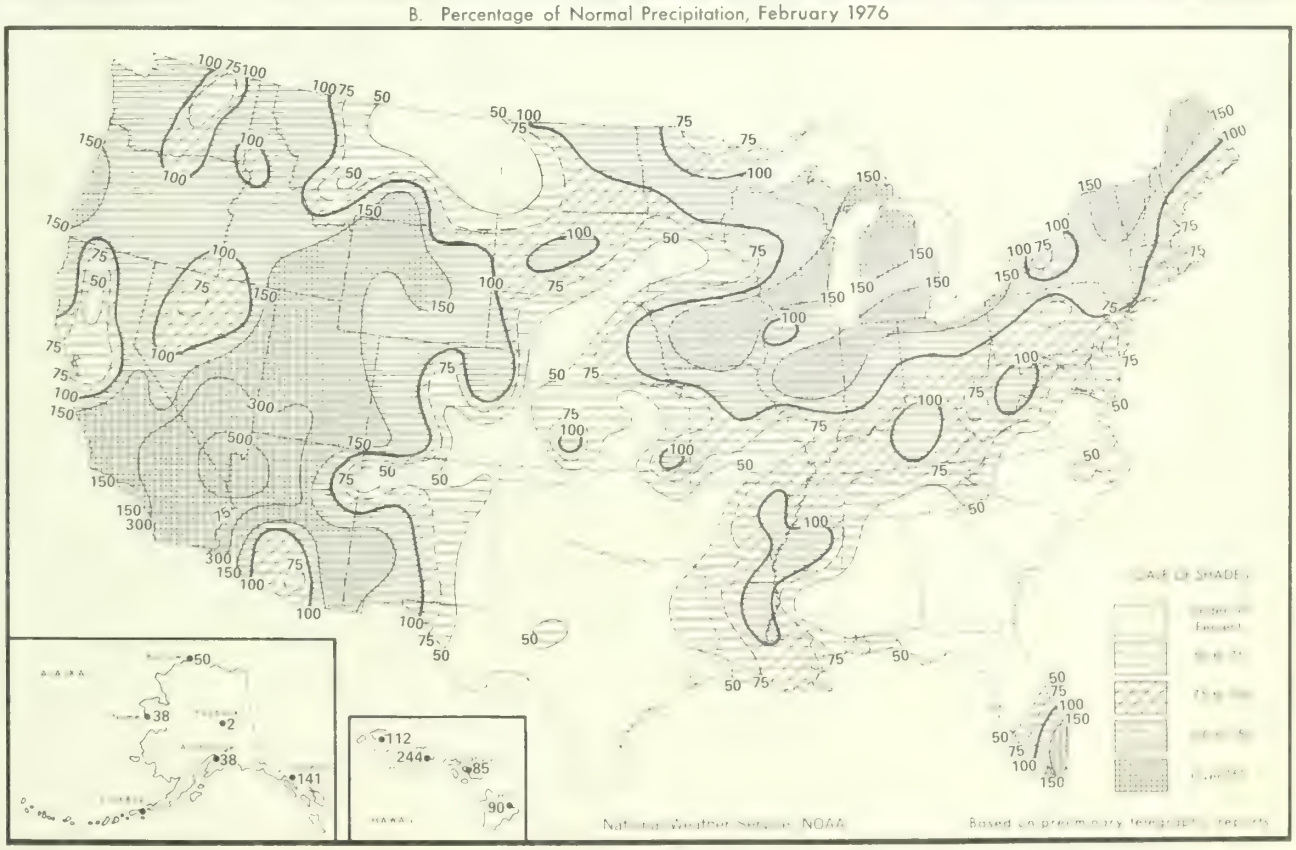
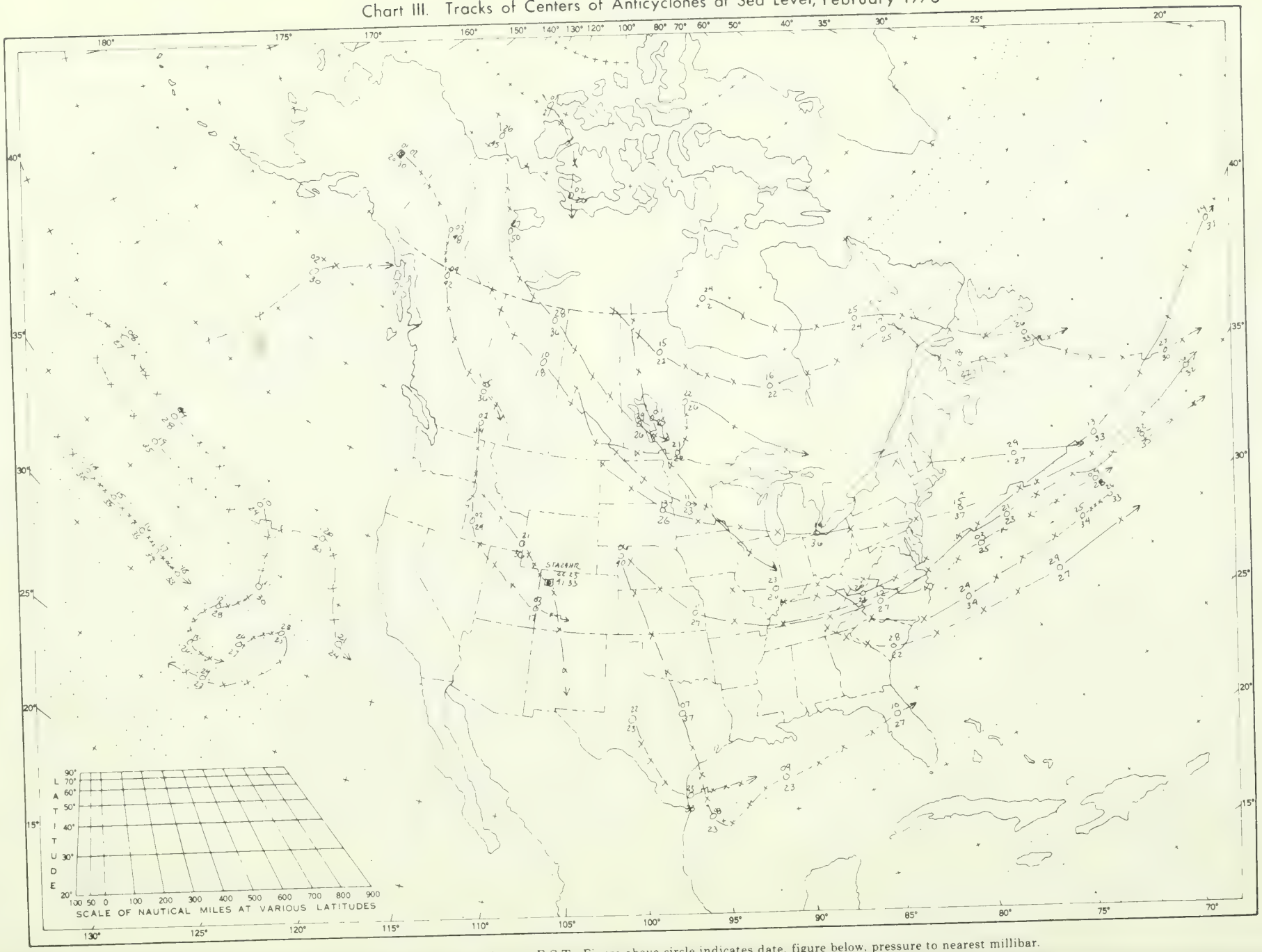
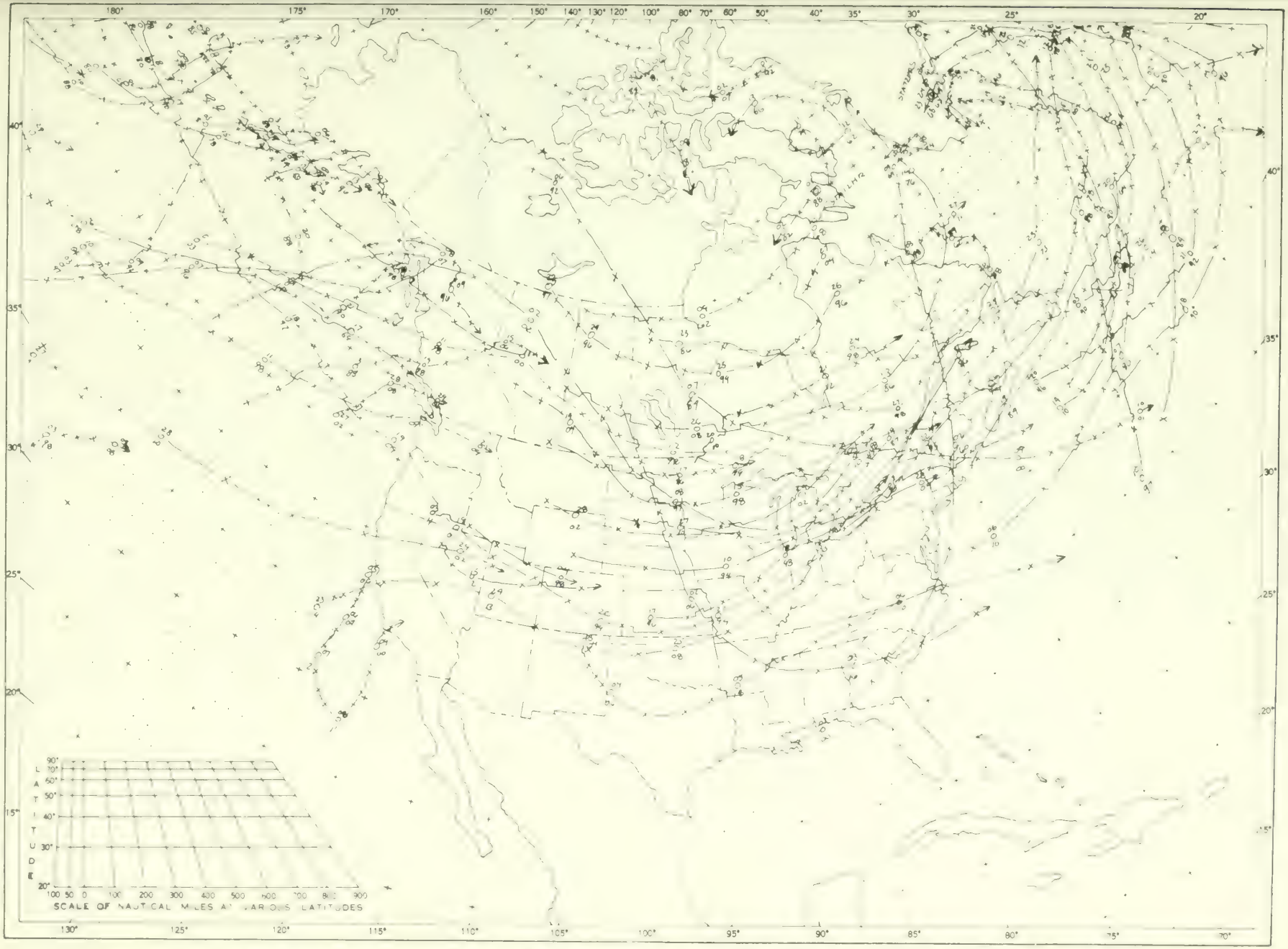


Chart III. Tracks of Centers of Anticyclones at Sea Level, February 1976



Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. Squares indicate position of stationary center for period shown. Dashed line in track



Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. X's indicate intervening 6 hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

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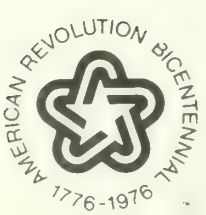

MARCH 1976 VOLUME 27 NUMBER 3

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

NOV 10 1976

"I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND IS COMPILED FROM INFORMATION RECEIVED AT THE NATIONAL CLIMATIC CENTER, ASHEVILLE, NORTH CAROLINA 28801."

Thomas D. Potter

DIRECTOR
NATIONAL CLIMATIC CENTER

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C O N T E N T S

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

MARCH 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

From the Continental Divide westward March average temperatures were generally slightly below normal. East of this area temperatures averaged above normal, but by not as much as February. The Midwest claimed the greatest departures, which ranged 6 to 8° above normal. From the 100th meridian to the Appalachians the month furnished above normal rainfall with some exceptions. Less than normal rain along most of the West Coast worsened critically low water supplies in California. The important winter wheat area in western Kansas, Oklahoma, and Texas received less than half the expected and much needed rain. The East Coast from Virginia southward was dry as a result of below normal March precipitation and drought plagued southwest Florida.

The first week of March saw a return to winter for the northwestern half of the Nation. West of a line from New Mexico to the Great Lakes region average temperatures ranged to 12 to 15° below normal in the northern Rockies and 6 to 9° below in most other places. The East remained above normal with maximum departures 15 to 18° above from the middle Mississippi Valley to the East Coast. Greatest precipitation ranged from 1 to 2 inches from the lower Mississippi Valley to the Great Lakes and eastward through New York. Freezing rain and snow characterized precipitation around the Great Lakes area and in New York.

In the second week heavy rain fell in the mid-South. Maximum amounts exceeded 5 inches in central Mississippi. Thunderstorms accompanied most of the mid-South rain and several tornadoes were reported. Showers extended westward to the Texas Panhandle, but were only light and widely scattered in the Panhandle, where moisture was badly needed. Rain was spotty and very light over the rest of the winter wheat area. Temperatures ranged near normal over most of the country.

In the third week more heavy rains in the mid-South dumped more than 5 inches in Alabama and northern Georgia. Heavy rain extended into South Carolina. Again, severe thunderstorms spawned damaging tornadoes and hail in the Southeast. Except in the Pacific Northwest, little or no precipitation fell west of the Mississippi River Valley. Although freezing weather dipped far south, almost to the Gulf Coast, early in the week, later warming pushed average weekly temperatures above normal in most of the Nation. Central Montana was 12° above normal. Temperatures averaged 6° above in most of central United States, but were near normal along both coasts. Even though spring officially arrived in the early part of the week, snow occurred from Michigan and the eastern Ohio Valley and the central and northern Appalachians and over the northern Atlantic Coast States.

March roared out as heavy rain with thunderstorms and tornadoes continued in the mid-South. The thunderstorm area extended northward up the Mississippi River Valley by mid-week. Dry areas in the United States, the western Plains, the Southwest, California, and southern Florida--remained dry. In the final week above normal temperatures continued across most of the Nation and averaged as much as 12° above normal in the central Plains.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	[illegible]	89	6	[illegible]	19	1	Aliceville	20.60	Headland	3.61
Alaska	Plant Material Center	74		Kodiak	15	1	Little Port Walter	20.27	Happy Valley	1
Arizona	Gila Bend	97	22	Hawley Lake	13		Sunrise Mountain	4.17	8 Stations	00
Arkansas	[illegible]	84	29	5 Stations	21	17	Lisbon	4.62	Mountain Home C of Eng	45
California	El Centro 2 SSW	94	28	[illegible]	1	6	Gasquet Ranger Station	5.85	6 Stations	00
Colorado	Lamar	88	29	Taylor Park	37	6	Wolf Creek Pass 1 E	5.46	John Martin Dam	0
Connecticut	Hartford WSO AP	76	26	Falls Village	1	15	Norfolk 2 SW	7.18	New Haven Airport	1.10
Delaware	Dover	82	21	Milford 2 WSW	16	18	Georgetown 5 SW	5.11	Middletown 1 WSW	48
Florida	Mountain Lake	97	29	[illegible]	27	18	St Marks 5 SSE	8.62	Stuart 1 N	15
Georgia	2 Stations	96	29+	Blairsville Exp Sta	11	15	Ball Ground	7.56	Metter	1.66
Hawaii	3 Stations	88	30+	Mauna Loa Slope Obs. HA	25	2	Hanapepe 1 ESE HA	12.11	Campbell Ind Pk 702.5 Oahu	15
Idaho	[illegible]	74	31	Island Park Dam	20	4+	Parker	4.10	Paul 1 ENE	06
Illinois	Kaskaskia R Nav Dock	81	21	3 Stations	11	17	Vermont 2 NW	7.47	Wayne City	1.28
Indiana	[illegible]	84	4	[illegible]	9	17	South Bend WSO AP	7.96	Warsaw	85
Iowa	Logan	81	19	2 Stations	-3	6	Clinton 1	6.56	Williamsburg	1.56
Kansas	5 Stations	96	26+	Colby 1 SW	-7		Girard	4.92	Bird City 11 S	69
Kentucky	Jackson	86	3	[illegible] WSO AP	14	17	Jamestown	8.72	Covington WSO AP	1.11
Louisiana	2 Stations	88	1	3 Stations	28	17	Saint Joseph Exp Sta	14.52	Rockefeller WL Refuge	1.10
Maine	3 Stations	87	21+	Van Buren 2	28	29	Patten 4 WSW	4.78	Bangor [illegible]	.59
Maryland	2 Stations	84	5	Frostburg 2	7	18	Catoctin Mtn Park	3.44	Aberdeen Phillips Fld	1.01
Massachusetts	Chester 2	82	20	Great Barrington AP	6	16	New Bedford	4.58	Amherst	2.17
Michigan	2 Stations	78	27+	Champion Van Riper Pk	26	1	Caro	7.96	Port Huron	2.06
Minnesota	Luverne	95	19	Baudette 21 SSE	-52	10	Caledonia	4.65	Rothsay	50
Mississippi	5 Stations	87	5	2 Stations	24	17	[illegible]	19.98	Purvis	4.17
Missouri	2 Stations	85	20+	2 Stations	8	6+	Caruthersville	7.77	Perryman 6 NW	1.56
Montana	Lima 1 WNW	78	31	Summit	-5	2	Hebgen Lake	2.45	Sonnette 2 WNW	01
Nebraska	2 Stations	87	26	5 Stations	-15		Wahoo	4.55	2 Stations	06
Nevada	Sunrise Manr Las Vegas	88	24	Mountain City RS	11	3	Virginia City	3.07	5 Stations	06
New Hampshire	2 Stations	70	24+	Mount Washington	-38	18	Mount Washington	9.42	Concord WSO AP	2.15
New Jersey	Pemberton 3 E	89	7	Sussex 1 SE	10	18	Woodcliff Lake	10	Atlantic City	91
New Mexico	2 Stations	88	26+	Chama	3	12	Brazos Lodge	4.15	12 Stations	00
New York	3 Stations	77	21+	Old Forge	-32	18	Boonville 2 SSW	7.87	Ogdensburg 4 NE	1.16
North Carolina	Mars Hill 6 SW	91	4+	Grandfather Mountain	11	17	Highlands 2 S	12.10	Roxboro	1.61
North Dakota	3 Stations	69	31	Upham 3 N	-52	5	Fortuna 1 SSE	0 1.05	Hannah 2 N	.12
Ohio	2 Stations	84	5	2 Stations	3	15+	Sidney 2 N	5.55	Lancaster 2 NW	1.28
Oklahoma	Buffalo	93	25	Goodwell Research Sta	3	5	Idabel	7.05	Goodwell Research Sta	19
Oregon	2 Stations	70	30+	Danner	12	4	Valsetz	14.50	2 Stations	63
Pennsylvania	Jamestown 2 NW	84	21	Austinburg 2 W	-1	18	Erie WSO AP	6.78	Morgantown	87
Puerto Rico	Dos Bocas	96	28	Adjuntas Substation	47	7	Pico Del Este	9.40	3 Stations	.00
Rhode Island	2 Stations	69	30	North Foster 1 E	10	18	Newport	3.69	Woonsocket	3.10
South Carolina	Florence FAA Al	91	3	Caesars Head	20	17	Caesars Head	9.94	Sullivan Island	1.71
South Dakota	3 Stations	78	25+	2 Stations	27	3	Deadwood	2.10	Interior 3 NE	1
Tennessee	3 Stations	84	7+	3 Stations	19	1+	[illegible]	9.88	Hazel 3 SW	2.89
Texas	Rio Grande City 3 W	105	21	2 Stations	8	5	New Boston 3 W	9.89	14 Stations	00
Utah	2 Stations	78	24+	Scofield	-3	6	City Creek Water Plant	4.36	2 Stations	.01
Vermont	Burlington WSO AP	71	27	West Burke	-14	18	Mount Mansfield	5.41	South Hero	1.88
Virginia	2 Stations	85	4	3 Stations	8	17	Pennington Gap	6.57	Burkes Garden	1.08
Virgin Islands	Charlotte Amalie 2	89	18	Annaly	70	15	Annaly	4.99	Charlotte Amalie 2	97
Washington	Kennewick	73	30	Conconully	-10	3	Point Grenville	21.93	Winthrop 1 WSW	96
West Virginia	Logan 2 ESE	87	31	2 Stations	7	18+	Pickens 1	4.78	Moorefield 2 SSE	97
Wisconsin	3 Stations	76	26+	Cooderay 8 W	-19	17+	Racine 5 W	7.56	Bowler	1.07
Wyoming	2 Stations	72	28	Bondurant 3 NW	39	3	Snake River	3.96	3 Stations	.

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0.3	No. of days (sunrise to sunset): Partly cloudy 4-7	No. of days (sunrise to sunset): Cloudy 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
ALABAMA																																	
BIRMINGHAM	180	995.9	1018.4	20.6	9.1	14.8	3.0	28.9	4	2.2	23+	0	0	8.3	69	959	203	89	15	10	0	0	1.0	19	22.4	6	20	3	7	21	7.6	51
HUNTSVILLE	190	995.3	1018.5	18.6	7.3	12.9	2.5	27.2	4	-1.7	17	0	3	5.1	66	174	27	39	16	6	0	0	1.3	18	15.6	26	20	5	7	14	7.1	
MOBILE	64	1010.5	1018.3	23.1	12.4	17.8	2.6	27.2	29+	2.8	17	0	0	13.2	73	244	64	134	13	9	0	0	1.7	15	11.3	21	27+	2	8	21	7.6	
MONTGOMERY	59	1011.5	1018.9	21.3	8.9	15.1	1.5	28.3	8	1.7	18	0	0	8.3	67	330	86	62	13	9	0	0	0.8	21	17.0	NW	16	6	7	18	7.0	61
ALASKA																																	
ANCHORAGE	35	1000.3	1005.4	-1.5	-7.3	-4.4	0.2	3.9	4+	-15.6	20	0	30	-8.9	71	45	31	18	13	0	780	610	2.8	3	19.3	23	6	3	4	24	8.2	43
ANNETTE	34	1007.1	1011.0	4.9	0.3	2.6	-0.9	8.3	24	-10.6	2	0	12	-2.2	74	309	70	59	22	0	467	178	3.0	15	13.4	18	17	3	4	24	8.8	
BARROW	9	1015.9	1016.5	-23.3	-29.3	-26.3	-0.1	-17.2	1	-35.6	30	0	31	-30.0	71	1	-4	1	0	0	15	142	2.2	5	14.3	7	7	10	13	8	5.1	
BARTER ISLAND	12	1013.9	1015.8	-24.4	-31.4	-27.9	-1.9	-6.7	3	-36.7	22	0	31	-31.1	71	22	16	12	12	0	229	254	2.4	28	24.6	27	15	12	9	10	5.1	
BETHEL	38	1002.0	1007.9	-9.2	-19.4	-14.3	-2.8	3.9	6	-30.0	14	0	31	-16.7	78	9	-11	4	11	0	170	305	1.0	21	19.2	18	6	10	11	10	5.6	
BETTLES	198			-9.8	-20.9	-15.3	1.6	-3.3	8	-36.7	29	0	31			15	-6	6	10		213	914			6.7	35	12					
BIG DELTA	388			-2.7	-17.0	-9.8	1.1	26.7	1	-27.2	10	1	31			12	4	4	5		211	330										
COLD BAY	29	1003.7	1007.2	-2.4	-8.7	-5.6	-3.9	5.0	30	-20.0	28	0	29	-7.2	85	94	46	52	21	0	353	203	0.4	36	19.7	14	5	2	6	21	7.0	
FAIRBANKS	133	990.9	1008.6	-4.8	-17.4	-11.1	1.4	2.8	6	-25.6	30	0	31	-16.1	66	14	2	3	13	0	284	483	1.8	36	8.9	25	7	5	6	20	7.4	
GULKANA	479			-2.4	-16.5	-9.4	0.3	3.3	6+	-30.0	1	0	31			262	253	5	4		221	356										
HOMER	19			0.4	-6.5	-3.0		5.6	3	-12.8	14	0	29			103	72	34	20	0	988	447			12.5	23	27	3	4	24	8.2	
JUNEAU	4	1008.1	1008.8	2.9	-2.5	0.2	0.3	7.2	21	-18.9	2	0	22	-3.3	79	93	1	20	26	0	648	381	3.9	11	13.4	12	11	1	3	27	9.1	28
KING SALMON	15	1004.4	1006.4	-4.6	-13.9	-9.3	-2.8	6.1	6	-27.2	28	0	30	-12.2	77	20	-10	6	11	0	170	127	0.6	11	14.3	16	2	5	10	16	6.2	
KODIAK	4	1000.3	1004.7	1.4	-5.4	-2.0	-2.1	6.1	6+	-10.0	19+	0	29	-7.2	69	54	-44	18	13	0	335	127	3.6	31	15.2	31	21	8	5	18	8.8	
KOTZEBUE	3	1009.1	1009.7	-12.3	-22.3	-17.3	0.7	-1.7	3	-33.3	26	0	31	-21.7	69	21	12	6	13	0	302	711	2.2	9	21.6	10	6	8	9	14	6.3	
MC GRATH	105	994.9	1008.1	-5.9	-20.6	-13.2	-0.4	2.2	6	-32.8	1	0	31	-17.2	69	34	14	15	10	0	408	991	0.8	34	10.3	19	6	7	9	15	8.7	
NOME	4	1007.1	1007.7	-10.8	-21.4	-16.1	-2.4	0.0	6+	-35.0	13	0	31	-18.3	80	19	-1	7	12	0	264	406	2.0	9	16.5	16	7	11	5	15	8.6	59
ST. PAUL ISLAND	7	1007.1	1008.1	-7.1	-14.3	-10.7	-6.1	0.6	30+	-25.0	27	0	31	-15.6	84	19	-13	5	12	0	198	483	1.4	34	23.2	23	6	2	19	10	8.4	
SUMMIT	731			-7.7	-16.6	-12.1	-0.6	-1.1	6	-25.6	15	0	31			42	15	11	11	0	1044	1432			15.6	7	17	4	4	23	8.0	
TALKEETNA	105			-0.6	-14.1	-7.3	-0.7	5.0	23	-30.6	14	0	31			69	30	25	14	0	1262	1346			8.9	2	29					
UNALAKLEET	6																	3				330										
VALDEZ	7			1.9	-5.2	-1.7	1.2	6.7	23	-12.8	9	0	30			97	-13		15		1918				12.5	36	11					
YAKUTAT	9	1005.4	1006.5	2.8	-4.3	-0.7	0.2	8.3	22	-17.2	1	0	27	-3.3	82	219	-24	39	22	0	1945	1372	2.1	8	12.5	18	30	3	5	23	8.1	
ARIZONA																																	
FLAGSTAFF	2134	784.0	1014.2	9.6	-5.9	1.9	0.7	17.8	24+	-16.7	5	0	30	-10.0	48	59	6	27	10	0	518	305	1.3	31	13.0	SW	19	11	6	14	5.4	78
PHOENIX	339	974.3	1013.3	23.7	9.1	16.4	1.0	32.2	27	1.7	4	1	0	-3.9	30	10	-9	10	1	0	T	0	1.3	28	17.9V	W	29	16	7	8	4.1	64
TUCSON	788	924.5	1012.3	22.3	6.8	14.6	0.3	29.4	27	-1.1	4	0	1	-5.0	31	10	-7	10	1	0	97	76	1.8	23	17.0	W	29	17	8	5	3.3	90
WINSLOW	1493	849.6	1015.4	15.0	-3.2	5.9	-1.2	25.0	18	-8.3	22+	0	25	-3.9	41	5	-6	2	4	0	33	25	2.8	23	16.5	20	25	11	12	8	4.7	
YUMA	59	1006.8	1014.1	24.5	9.8	17.2	-0.6	32.2	22	3.9	4	1	0	-2.8	31	1	-5	1	1	0	0	0	1.6	30	13.9	NW	12	21	6	5	2.1	93
ARKANSAS																																	
FORT SMITH	134	998.6	1015.6	19.3	4.7	12.1	1.9	27.2	3+	-2.8	6	0	7	4.4	62	107	14	41	9	5	0	0	0.6	25	17.9	N	26	8	7	16	6.1	54
LITTLE ROCK	78	1006.8	1016.5	19.4	7.7	13.6	3.4	27.2	3	0.0	17	0	1	7.2	67	140	15	53	14	6	0	0	1.9	20	18.0	SW	24	7	5	19	6.9	74
CALIFORNIA																																	
BAKERSFIELD	149	1000.3	1017.9	20.1	8.2	14.1	0.4	29.4	17	3.9	5+	0	0	3.9	55	11	-13	11	2	0	0	0	1.3	36	11.2	33	31+	13	10	8	4.5	
BISHOP	1357	872.3		17.3	-1.4	7.9	0.0	24.4	24	-8.3	6+	0	19			1	-10	1	2		10	T			22.4V		25	15	11	5	4.1	
BLUE CANYON	1409	837.5	1016.6	8.6	-1.4	3.6	0.3	16.7	16	-8.9	4+	0	20	-4.1	56	69	-152	55	7		439	533			11.6	20	18					
EUREKA U	13			11.1	4.1	7.6	-1.4	18.3	15	0.0	1	0	1			79	-43	24	14		T	0			15.6		16	8	6	17	5.4	47
FRESNO	100	1006.4	1018.1	18.4	4.3	11.3	-0.8	26.7	17	0.0	5+	0	2	3.9	66	11	-30	9	2	0	0	0	1.3	36	14.3	NW	25+	12	13	6	4.4	52
LONG BEACH	8	1014.9	1015.2	21.6	9.4	15.5	1.5	31.7	22	3.3	4	0	0	7.8	65	17	-21	9	4	0	0	0	1.3	26	9.4	28	27+	12	10	9	4.4	
LOS ANGELES	30	1012.2	1016.3	19.6	9.7	14.7	1.1	27.8	22	5.0	4	0	0	7.2	66	21	-22	13	5	1	0	0	1.8	26	17.0V	W	27	12	9	10	4.7	
LOS ANGELES	80			20.3	9.0	14.7	-0.4	29.4	21	1.7	4	0	0			46	-10	26	4		0	0			11.2	NW	3	17	10	4	4.6	67
MT SHASTA R	1080			10.9	-2.6	4.2	-0.5	18.9	21+	-9.4	5	0	27			31	-71	12	6		259	152										
OAKLAND	2	1019.3	1019.7	15.1	7.1	11.1	-1.0	22.2	16	2.2	3	0	0			24	-35	28	4	2	T	0	2.6	29	13.4	14	2	10	12	9	5.0	
RED BLUFF	104	1005.1	1018.7	18.3	3.6	10.9	-0.8	24.4	30+	-2.2	3	0	6	2.6	55	37	-26	31	4	1	203	102	1.3	34	16.5	SE	24	10	10	11	5.4	67
SACRAMENTO	6	1017.3	1018.2	19.7	5.4	12.6	0.9	27.8	30	-0.6	4	0	2	3.3	61	11	-44	11	2	0	0	0	1.4	28	18.1	SW	24	13	11	7	4.8	66
SANDBERG R	1377	861.4																5							20.8	NW	19					
SAN DIEGO	4	1015.6	1016.4	19.9	11.8	15.7	1.2	27.2	22	6.7	6	0	0	5.7	59	28	-14	17	3	0	1	0	1.4	27	18.9	SW	6	11	11	10	5.3	82
SAN FRANCISCO	2	1018.6	1019.3	15.1	8.1	10.6	-1.1	22.2	16	1.7	3	0	0	3.9	67	31	-34	36	4	1	T	T	3.0	29	14.3	29	31	11	9	11	5.5	
SAN FRANCISCO	14			14.7	8.1	11.4	-1.0	24.4	18	4.4	2	0	0			28	-45	21	6														
SANTA MARIA	72			18.1	4.6	11.3	-0.2	27.8	16	-1.1	4	0	1			18	-32	16	3		0	0						14	9	8	4.3	
STOCKTON	7	1017.3	1018.4	18.1	3.5	10.8	-0.7	25.6	17	-0.6	4	0	3	2.2	62	14	-34	15	4	0	T	0	2.4	29	12.6	18	2	13	7	11	5.1	
COLORADO																																	
ALAMOSA	2297	766.7		9.1	-8.7	0.2	0.7	17.2	24	-16.1	21+	0	30			10	1	5	4		183	76										

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation ground	Pressure		Temperature											Average relative humidity	Precipitation							Wind				No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days						No. of days		Snow, ice pellets				Fastest mile (1.6 kilometers)							
	Elevation ground	Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Resultant speed	Resultant direction	Speed	Direction	Date	Clear, 0.3	Partly cloudy 4.7	Cloudy 8.10		
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
COLORADO																																
COLORADO SPRINGS	1873	805.6	1012.6	10.1	-5.5	2.3	0.4	22.9	25	-16.7	4	0	29	-11.7	42	14	-4	8	8	0	218	152	2.8	33	18.3	33	21	12	12	7	4.5	
DENVER	1610	831.4	1011.5	10.9	-5.3	2.8	0.1	22.8	25	-18.9	5	0	29	-9.4	47	34	3	13	9	0	475	178	1.1	26	22.4	NW	19	10	13	8	5.1	76
GRAND JUNCTION	1478	849.6	1014.6	11.4	-4.0	3.7	-1.4	21.7	23	-12.2	5	0	28	-8.3	47	10		8	8	0	173	76	0.3	28	21.0	NW	14	10	11	10	5.3	74
PUEBLO	1428	851.0	1012.1	13.2	-5.9	3.6	-0.8	25.6	25	-22.2	5	0	28	-7.8	52	29	5	14	8	0	282	203	1.4	33	23.2	N	25+	13	10	8	4.7	91
CONNECTICUT																																
BRIDGEPORT	2	1017.6	1018.1	9.1	0.1	4.6	1.3	17.2	29+	-7.8	18	0	17	-1.7	67	70	-19	30	13	2	137	102	1.7	31	16.1	31	17	5	13	13	6.7	
HARTFORD	59	1010.8	1017.4	10.6	-1.4	4.6	2.6	24.4	20	-10.6	18	0	21	-3.9	59	79	-24	20	13	0	312	178	1.4	28	17.4	NW	21	5	11	15	6.9	57
DELAWARE																																
WILMINGTON	29	1015.2	1018.4	13.4	2.6	8.1	2.7	26.1	21+	-6.7	18	0	9	-0.6	59	57	-38	17	12	1	170	152	1.0	26	17.0	31	21	6	9	20	6.9	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	98	1006.1	1017.9	13.8	0.2	7.0	1.6	26.1	5	-10.6	18	0	19	0.6	68	109	17	24	12	1	183	152	1.2	22	13.4	29	16+	8	7	16	6.7	
WASHINGTON NATIONAL	3	1015.9	1018.2	16.4	5.1	10.7	3.4	28.3	5	-4.4	18	0	5	1.7	57	64	-21	19	10	0	20	T	0.9	24	16.5	NW	21	9	8	13	6.4	53
FLORIDA																																
APALACHICOLA U	4	1019.0	1019.4	22.3	12.6	17.5	1.6	25.6	31+	2.8	18+	0	0	14.4	82	124	4	66	6	4	0	0	1.8	16	10.3	N	27+	7	8	16	6.5	60
DAYTONA BEACH	9	1018.3	1019.7	25.8	14.3	20.1	2.3	30.0	31+	5.6	18+	0	0	14.4	72	57	-34	22	7	4	0	0	1.1	13	10.7	23	9	13	9	9	4.7	
FORT MYERS	5	1019.7	1019.4	28.2	15.7	21.9	1.7	30.6	29+	8.3	18	0	0			23	-55	15	5	3	0	0	1.1	13	10.3	21	16	11	19	1	4.1	
JACKSONVILLE	8	1019.0	1019.8	24.9	11.7	18.3	2.1	30.0	31+	1.7	18	0	0	13.3	76	87	-4	49	7	3	0	0	2.9	16	18.8	W	16	11	10	10	5.5	71
KEY WEST	1	1018.0	1018.5	27.3	22.8	25.1	1.4	28.3	23+	18.3	18	0	0	18.3	68	1	-38	1	2	0	0	0	4.2	12	11.2	E	24	16	14	1	3.4	94
LAKELAND U	65			28.2	15.7	22.0	2.9	31.1	31+	6.7	17	0	0			48	-54	45	4		0	0						8	20	3	4.4	88
MIAMI	2	1019.3	1019.7	27.4	21.2	24.3	2.5	30.6	23+	13.9	18	0	0	17.8	69	8	-47	3	3	0	0	0	3.4	11	12.1	4	23	4	24	3	5.0	
ORLANDO/MC COY AFB	29	1016.3	1020.6	28.0	14.7	21.3	2.5	31.1	31	6.1	17	0	0	14.4	70	44	-44	16	8	7	0	0	0.9	13	13.9	23	9	9	11	11	5.4	
PENSACOLA	34	1014.6	1018.9	21.9	12.9	17.4	1.9	26.7	27	2.2	17	0	0			160	-1	57	12	5	0	0	1.5	14	11.2	33	21+	5	8	18	7.3	
TALLAHASSEE	17	1017.3	1019.6	24.3	9.9	17.2	1.4	28.4	29+	0.0	18	0	1	12.2	76	135	-16	56	10	4	0	0	1.0	18	10.7	6	27	4	11	16	6.8	
TAMPA	6	1019.3	1019.6	27.2	15.6	21.4	2.5	30.0	29+	6.1	17	0	0	15.0	70	42	-57	30	5	5	0	0	0.9	13	10.3	30	16	13	9	9	4.7	83
WEST PALM BEACH	5	1019.0	1019.8	26.9	18.2	22.6	1.6	29.4	16	10.6	18	0	0	15.6	67	47	-38	45	5	1	0	0	2.7	12	11.6	7	24+	5	23	3	5.0	
GEORGIA																																
ATHENS	244	989.5	1018.4	20.1	7.9	14.0	3.0	28.3	4	-0.6	18	0	2	7.8	69	217	72	90	10	8	0	0	1.1	23	11.2	30	16	4	11	16	7.3	
ATLANTA	308	981.4	1018.4	19.9	7.2	13.6	2.9	27.8	4	-0.6	18+	0	3	5.6	63	279	130	129	15	9	T	T	1.3	23	12.5	W	16	5	10	16	7.1	51
AUGUSTA	41	1013.5	1018.9	23.1	8.4	15.8	3.2	29.4	4+	0.0	18	0	1	8.9	70	104	-14	51	11	3	0	0	1.0	20	13.4	21	9	5	9	17	7.1	
COLUMBUS	117	1004.7		21.9	8.9	15.4	2.4	29.4	4	0.6	18+	0	0	8.9	69	200	47	54	13	3	0	0	0.4	22	10.3	30	16	5	8	18	7.2	
MACON	108	1006.1	1019.6	22.9	8.6	15.8	2.2	30.6	4	-0.6	18	0	1	9.4	69	122	-9	38	12	4	0	0	1.1	20	17.4	NW	16	2	12	17	7.3	55
ROME	194			20.0	5.6	12.8	2.6	28.3	4	-2.2	18	0	5			302	146	80	15		0	0										
SAVANNAH	14	1018.3	1020.0	23.1	10.9	17.0	2.6	29.4	31+	0.6	18+	0	0	11.1	73	64	-48	27	10	2	0	0	0.9	20	18.8	W	16	5	11	15	6.8	54
HAWAII																																
HILO	8	1014.9	1016.0	25.3	18.7	22.0	0.3	28.3	1	16.1	1	0	0	18.2	87	435	287	101	28	3	0	0	0.2	1	8.0	NW	10	0	4	27	9.1	37
HONOLULU	2	1015.2	1015.8	26.9	19.3	23.1	0.3	28.3	4+	12.8	13+	0	0	15.6	64	69	-13	35	15	0	0	0	4.0	5	14.3	NE	31	1	15	15	7.6	59
KAHULUI	18	1013.2	1015.5	26.3	18.9	22.7	0.3	28.3	28+	12.8	12	0	0			94	21	24	18	0	0	0	4.4	5	15.6	E	26	5	5	21	7.5	22
LIHUE	31	1011.9	1017.2	24.9	20.1	22.5	0.4	26.7	23	14.4	14+	0	0	17.8	75	188	69	65	22	0	0	0	4.5	5	12.1	NE	31	1	13	17	7.7	55
IDAHO																																
BOISE	868	916.0	1018.3	8.1	-2.8	2.8	-2.2	18.0	31	-11.7	4	0	23	-4.4	62	18	-7	11	9	1	99	51	0.4	10	20.6	NW	22	6	8	17	6.4	75
LEWISTON	431			10.4	-0.6	4.9	-1.1	20.0	30	-9.4	4	0	14			19	-5	11	9		10	T			23.7Y		24	1	5	25	8.7	
POCATELLO	1358	861.5	1017.2	5.8	-5.2	0.3	-1.6	15.0	16+	-16.7	2	0	29	-6.1	65	27	4	13	12	0	178	102	4.0	22	19.2	SW	19	4	13	14	6.7	69
ILLINOIS																																
CAIRO U	96			17.3	7.9	12.6	3.8	25.6	3	-0.6	17	0	1			83	-38	19	15		0	0			18.3	SW	20					60
CHICAGO O HARE	201	988.5	1013.0	11.2	0.7	6.0	3.9	25.0	26	-7.8	17	0	14	-0.6	65	150	84	41	12	8	48	51	2.7	23	16.5	24	12+	3	11	17	7.4	
CHICAGO MIDWAY	188	990.5	1013.6	11.3	0.9	6.2	3.5	25.0	26	-8.3	17	0	16	-0.6	64	134	67	47	14	11	46	T	2.5	22	17.9	SW	5	2	12	17	7.3	58
MOLINE	177	991.5	1013.5	11.1	-0.8	5.1	3.1	25.0	19	-8.9	6	0	18	-1.1	66	93	28	45	12	4	15	T	2.1	24	17.0	NW	21+	6	7	18	6.8	55
PEORIA	199	989.8	1014.1	12.9	0.2	6.6	3.7	23.3	19+	-7.2	17+	0	18	1.7	74	109	37	40	12	7	51	T	2.3	21	19.2	W	4	3	8	20	7.5	53
ROCKFORD	221	985.9	1013.3	9.6	-2.3	3.6	2.4	23.3	19	-11.7	17	0	23	-2.2	69	129	56	64	9	7	8	T	1.8	24	14.8	22	24	3	9	19	7.4	
SPRINGFIELD	179	991.9	1014.5	13.6	1.3	7.4	3.3	24.4	2	-7.2	17	0	17	2.8	73	142	74	49	15	8	56	51	2.5	21	21.5	SW	12	5	8	18	7.2	53
INDIANA																																
EVANSVILLE	116	1002.0	1016.2	17.3	4.4	10.9	4.1	26.1	4	-5.0	17	0	8	5.6	71	57	-62	17	10	4	5	T	2.1	21	16.1	SW	27	5	15	11	6.2	76
FORT WAYNE	241	984.1	1014.6	12.3	0.6	6.4	3.9	23.9	26	-6.7	17	0	17	0.0	67	88	15	35	13	6	89	76	2.6	23	17.9	W	12	5	10	16	7.1	64

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation						Wind				No. of days sunrise to sunset			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Fastest mile (1.6 kilometers): Direction	Fastest mile (1.6 kilometers): Date	Clear 0.3	Partly cloudy 4.7	Cloudy 8.10		
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
INDIANA																																	
INDIANAPOLIS	241	986.1	1015.7	14.2	2.1	8.1	3.8	33.9	4	-8.3	17	0	17	3.3	73	88	-7	21	13	7	58	51	2.7	22	16.5	SW	30+	4	4	19	7.7	58
SOUTH BEND	238	985.1	1013.6	12.1	0.8	6.4	4.6	24.4	26	-6.7	11+	0	16	0.6	71	202	132	45	11	6	97	95	2.6	24	17.9	28	20	3	4	19	7.6	
IOWA																																	
BURLINGTON	211			11.7	-0.2	5.7	3.0	23.3	19	-7.8	6	0	19	0.6	70	85	18	38	8	3	T	T	1.8	25	15.6	25	12	4	10	17	7.0	
DES MOINES	284	978.0	1013.4	9.6	-1.1	4.3	3.2	28.6	19	-10.0	6+	0	19	-3.3	62	77	19	32	7	1	23	25	1.1	28	17.9	NW	12	4	4	19	7.1	59
DUBUQUE	322			7.7	-2.7	2.5	2.4	23.3	19	-10.6	17+	0	24			94	19	53	9		18	25											
SIOUX CITY	334	972.9	1013.6	8.2	-3.4	2.4	1.8	25.6	19	-17.2	6	0	22	-3.3	70	67	30	29	11	2	180	152	1.3	32	20.6	S	19	7	6	18	6.8	67
WATERLOO	268	980.7	1013.1	7.7	-3.3	2.2	2.4	23.3	19	-12.2	6	0	25	-2.8	70	80	23	27	9	3	96	95	1.1	27	14.8	32	24+	5	7	19	7.6	
KANSAS																																	
CONCORDIA	449	959.7	1013.3	12.2	-1.3	5.5	1.6	28.9	25	-12.8	5	0	20	-2.8	61	64	26	30	7	2	168	76	1.6	23	21.9	NW	12	12	7	12	5.4	75
DODGE CITY	787	921.4	1012.8	14.9	-1.0	6.9	1.8	31.7	25	-13.3	5	0	20	-4.4	54	19	-10	8	8	2	69	25	1.1	28	21.0	NW	19	11	9	11	5.4	66
GOODLAND	1114	883.8	1012.5	12.1	-4.9	3.6	1.2	27.2	25	-20.0	5	0	25	-6.7	56	8	-14	4	6	0	147	76	2.0	28	18.3	33	12	9	12	10	5.5	
TOPEKA	267	981.7	1014.0	14.4	0.5	7.4	2.3	26.7	19	-9.4	5	0	14	0.6	66	35	-20	17	8	2	74	76	1.0	24	17.0	S	26+	12	5	14	5.0	64
WICHITA	409	965.5	1013.8	15.7	0.2	7.9	1.5	30.0	25	-10.6	5	0	17	-1.1	58	38	-7	19	6	2	T	T	1.8	25	17.9	N	28	12	8	11	5.1	64
KENTUCKY																																	
COVINGTON	265	984.1	1015.9	14.8	1.8	8.3	2.9	26.7	4	-10.0	17	0	16	1.7	69	54	-50	22	13	2	15	T	2.7	22	18.0	25	27+	6	8	17	7.1	
LEXINGTON	294	981.4	1017.0	15.7	4.2	10.0	3.6	27.2	4	-7.2	17	0	10	3.3	65	94	-27	28	15	3	86	25	2.7	21	15.6	16	24	6	8	17	6.9	
LOUISVILLE	148	998.3	1016.1	17.5	5.1	11.3	4.7	28.9	4	-5.0	17	0	8	3.9	63	73	-55	31	10	2	18	T	2.4	22	16.1	NW	27	5	8	16	6.8	47
LOUISIANA																																	
ALEXANDRIA	28	1012.9	1017.7	21.6	10.6	16.1	2.6	28.3	26+	0.0	17	0	1	11.7	77	171	46	42	16	12	0	0	1.0	15	11.6	17	4	3	5	23	8.9	
BATON ROUGE	20	1014.9	1017.8	23.1	12.0	17.6	2.2	28.9	5	1.7	17	0	0	11.7	72	132	1	68	16	8	0	0	1.4	15	11.6	16	4	3	5	23	7.9	
LAKE CHARLES	4	1015.6	1018.8	21.9	12.6	17.3	1.6	27.8	5	3.3	17	0	0	13.3	82	64	-33	28	10	7	0	0	2.2	13	18.9	16	4	2	5	24	8.4	
NEW ORLEANS	1	1016.6	1017.5	23.2	13.3	18.2	2.3	27.8	17+	2.8	18	0	0	15.0	81	73	-61	40	9	6	0	0	1.7	15	13.0	20	24	3	6	24	7.9	51
SHREVEPORT	77	1007.1	1016.4	21.6	9.7	15.7	1.9	28.9	29	0.6	17	0	0	10.0	73	169	66	50	15	11	0	0	1.7	18	12.5	18	4	2	5	24	8.1	42
MAINE																																	
CARIBOU	190	990.2		0.6	-10.9	-5.2	-0.5	11.1	27	-23.3	19	0	26			65	9	23	14		592	940						3	8	20	7.6	
PORTLAND	13	1014.2	1016.5	4.7	-5.3	-0.3	-0.2	13.3	24	-15.6	18	0	26	-6.1	67	63	-29	16	12	0	564	254	1.7	29	16.1	NW	21	6	11	14	6.3	60
MARYLAND																																	
BALTIMORE	45	1012.9	1018.5	14.8	3.1	8.9	2.9	28.3	5	-6.7	18	0	9	1.7	63	57	-37	23	8	1	198	203	1.0	20	22.4	NW	13	8	4	19	6.7	57
MASSACHUSETTS																																	
BLUE HILL OBS	192			8.1	-2.0	3.1	1.3	21.1	26	-12.2	18	0	20			84	-31	25	14		348	127										59
BOSTON	6	1016.2	1017.2	9.7	0.4	5.1	1.7	22.2	26	-7.8	18	0	15	-2.8	60	61	-40	17	14	1	274	127	2.1	27	18.8	NW	21	6	10	15	6.6	61
WORCESTER	307	978.7		7.2	-3.8	1.7	1.0	18.9	26	-14.4	18	0	21			70	-28	27	14	1	417	254	2.6	28	17.4	30	21	8	8	15	6.4	
MICHIGAN																																	
ALPENA	210	987.1	1013.0	4.5	-6.1	-0.8	2.4	19.4	26	-16.7	17+	0	26	-4.4	77	113	65	27	20	5	480	508	1.2	24	14.3	SW	5	5	9	19	7.5	68
DETROIT	189			10.1	0.4	5.2	3.3	23.9	30	-8.3	17	0	19	+2.2	61								2.5	22	15.6	23	5					
DETROIT METRO	193	989.5	1014.1	10.4	-1.1	4.7	2.8	23.9	30+	-10.0	17	0	21	-2.2	66	108	45	33	15	4	191	127	2.3	24	21.9	SW	5	7	7	17	7.1	49
FLINT	238	985.1	1013.4	8.7	-1.3	3.7	3.4	22.8	26	-9.4	22	0	21	-2.2	66	93	39	25	14	5	142	25	2.8	24	15.6	34	27+	2	11	18	7.5	
GRAND RAPIDS	239	983.7	1013.3	8.8	-2.3	3.3	2.7	25.0	26	-12.8	17	0	23	-2.2	69	127	63	38	15	5	89	25	2.1	22	29.5	SW	20	2	10	19	7.8	56
HOUGHTON LAKE	350	969.5	1012.8	4.6	-6.0	-0.7	2.3	18.9	26	-14.4	17	0	26	-4.4	76	98	38	20	12	7	173	76	2.8	23	23.2	SW	20	2	11	18	7.7	44
LANSING	256	981.0	1013.4	9.1	-2.2	3.4	2.9	23.3	30+	-10.6	17	0	23	-1.1	77	100	53	25	20		1125	1647			17.0	S	20	1	6	20	8.1	51
MARQUETTE	204			1.9	-5.0	-2.0	0.6	18.3	14	-14.4	17	0	25			167	107	60	17	8	173	51	2.1	22	18.3	25	5	2	8	21	8.0	
MUSKEGON	191	989.5	1013.0	7.7	-1.6	3.1	2.7	22.2	26	-10.6	8	0	22	-1.7	74	124	82	46	23	2	815	899	3.4	12	14.3	NW	5	3	6	21	8.1	50
SAULT STE MARIE	220	985.1	1012.5	-0.6	-9.6	-5.1	-0.6	10.6	24	-22.2	17	0	25	-7.2	84																		
MINNESOTA																																	
DULUTH	435	959.4	1012.4	-1.2	-10.0	-5.6	-0.8	10.0	19	-21.7	17	0	28	-10.0	70	93	49	26	20	6	671	660	0.9	31	18.8	E	2	7	4	22	7.5	40
INTERNATIONAL FALLS	359	964.2	1013.1	-1.6	-14.8	-8.2	-1.8	11.1	19	-28.9	10	0	30	-12.2	68	43	19	22	14	1	714	698	1.7	26	11.2	34	24	5	6	24	7.6	
MINNEAPOLIS	256	981.7	1013.1	5.1	-5.7	-0.3	1.7	18.3	23+	-19.4	6	0	22	-5.6	67	72	29	24	14	3	345	254	1.7	20	16.5	N	12	3	7	17	7.0	52
ROCHESTER	198	991.8	1012.4	5.7	-5.9	-0.1	2.2	20.0	19	-17.2	6	0	25	-3.9	73	74	31	28	12	1	262	127	1.4	26	17.0	20	23	4	7	20	7.5	
ST CLOUD	312	976.3	1013.6	2.9	-9.7	-3.4	0.0	15.6	23	-26.1	6	0	27			48	11	20	11		259	203						9	3	18	6.7	
MISSISSIPPI																																	
JACKSON	94	1005.6	1017.6	21.3	9.8	15.6	2.2	28.9	20	-0.6	17	0	1	11.1	80	384	241	66	17	13	0	0	1.3	16	13.0	SW	20	5	5	21	7.8	44

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind				No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
											No. of days								No. of days		Snow, Ice pellets				Fastest mile (1.6 kilometers)							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm or more	With thunderstorms	Total	Maximum depth on ground	Resultant speed	Resultant direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
MISSISSIPPI																																
MERIDIAN	88	1007.1	1018.3	21.2	7.9	14.6	1.2	28.9	20	-0.6	17	0	1	10.6	82	418	261	102	17	13	0	0	1.0	18	13.0	17	20	3	6	22	8.0	
MISSOURI																																
COLUMBIA REGIONAL	270	982.1	1014.6	14.3	1.8	8.1	2.7	25.6	2	-6.7	6	0	11	2.2	70	112	46	44	10	5	145	152	1.7	22	20.1	SW	30+	9	7	15	6.1	59
KANSAS CITY	309	976.3	1013.5	13.0	1.4	7.2	2.1	23.3	19	-10.6	5	0	13	0.6	69	64	-1	26	8	4	38	51	1.3	23	16.1	NW	30	10	7	14	8.9	64
ST JOSEPH	247			12.6	0.3	6.4	2.0	24.4	19	-9.4	16+	0	13			85	24	61	4		51	51										
ST LOUIS	163	994.6	1015.2	15.9	2.7	9.3	3.1	26.1	26+	-6.1	17	0	12	4.4	74	109	32	47	13	8	122	127	1.7	23	17.9	SW	12	7	11	13	6.2	86
SPRINGFIELD	386	968.8	1014.6	16.9	3.2	10.1	3.4	25.6	2	-6.1	5	0	9	2.8	65	64	-12	26	11	4	15	25	2.1	21	15.2	S	4	9	10	12	5.7	64
MONTANA																																
BILLINGS	1087	887.6	1014.0	6.4	-6.5	0.0	-0.3	20.6	31	-25.0	3	0	28	-10.0	51	24	-2	15	4	0	249	152	4.1	26	21.9	NW	23	6	13	12	6.2	65
GLASGOW	694	929.2	1013.2	5.2	-8.2	-1.5	2.3	21.1	31	-27.2	4+	0	29	-6.3	64	8	-2	3	7	0	124	76	1.0	31	17.9	28	23	6	17	8	6.0	
GREAT FALLS	1114	883.8	1014.5	6.1	-6.6	-0.2	0.6	21.7	31	-28.9	3	0	24	-10.6	52	19	-6	11	3	0	226	127	5.9	24	17.9	SW	12	5	11	15	6.8	72
HAVRE	788	918.7	1013.0	6.6	-8.0	-0.7	2.4	23.9	31	-31.1	3	0	26	-8.3	59	18	5	10	7	0	211	152	3.4	26	17.0	SW	23	4	11	16	6.8	87
HELENA	1167	878.1	1016.6	5.2	-7.0	-0.9	-0.1	18.9	31	-28.9	3	0	27	-10.6	51	10	-7	6	7	0	170	127	2.9	27	17.9	W	22	3	10	18	7.2	58
KALISPELL	904	909.6	1016.7	4.9	-5.4	-0.2	0.6	16.7	31	-21.1	4	0	26	-6.1	69	9	+13	2	9	0	84	76	0.7	17	17.0	3	11	4	2	25	7.9	
MILES CITY	801	918.1	1013.0	7.1	-6.6	0.3	1.3	21.1	31	-26.7	3	0	27	-5.6	68	9	-7		5	0	89		2.9	29								
MISSOULA	972	902.8	1017.0	7.3	-4.2	1.6	0.8	20.0	31	-20.0	3	0	24	-5.0	66	10	-8	3	12	0	64	51	0.8	27	14.3	NW	19	1	7	23	8.4	55
NEBRASKA																																
GRAND ISLAND	561	946.2	1013.3	10.2	-2.7	3.7	1.8	27.8	25	-16.7	5	0	22	-4.4	62	58	25	33	7	3	297	178	1.3	31	20.1	32	12	10	6	15	6.1	
LINCOLN	359	969.9	1013.3	10.6	-2.6	4.0	1.5	26.7	19	-14.4	5	0	21	-2.8	65	66	27	39	7	2	135	51	1.0	31	24.1	N	30	9	6	16	6.2	57
NORFOLK	471			9.0	-3.2	2.9	2.4	25.0	25	-16.1	6	0	22			68	33	38	9		244	152						8	6	17	6.5	
NORTH PLATTE	846	914.0	1013.8	9.3	-7.2	1.1	-0.2	22.8	25+	-25.0	5	0	29	-7.8	58	52	26	43	4	1	132	102	1.2	33	21.9	NE	29	6	12	13	6.2	67
OMAHA	298	977.3	1013.3	11.2	-1.9	4.7	1.8	29.4	19	-12.2	5	0	21	-2.2	64	54	14	28	7	3	107	102	0.9	33	18.3	S	23	8	5	18	6.6	56
SCOTTSBLUFF	1206	875.0	1013.1	11.1	-6.0	2.6	1.3	24.4	23	-22.2	5	0	29	-8.3	50	9	+10	4	8	0	150	76	2.5	30	20.1	28	19	9	11	11	5.6	
VALENTINE	789			8.4	-6.8	0.8	1.3	21.7	23	-23.3	5	0	27			14	-5	6	6		211	127			30.4	NW	12	8	10	13	6.2	67
NEVADA																																
ELKO	1539	843.2	1017.0	8.7	-7.0	0.8	-0.8	18.9	31	-12.2	5	0	31	-8.3	56	6	-15	3	8	0	89	25	1.3	27	12.1	17	31	10	5	16	6.1	
ELY	1906	806.3	1016.1	7.7	-9.2	-0.7	-1.2	16.1	31+	-22.2	5+	0	31	-8.3	60	20	-2	13	7	0	264	152	1.2	23	14.8	S	1	9	9	13	5.7	73
LAS VEGAS	659	938.0	1014.9	18.9	4.8	11.9	-0.8	28.3	24	-1.1	5	0	3	+10.0	24	1	-8	T	2	0	T	0	1.3	29	22.4	SW	18	14	13	4	3.9	93
RENO	1342	865.2	1016.9	12.7	-5.7	3.5	-1.1	21.7	16	-12.8	4	0	25	-7.8	48	9	-9	5	6	0	198	102	1.5	25	23.2	W	24	11	9	11	5.3	85
WINNEMUCCA	1311	867.9	1017.0	13.3	-7.0	3.2	0.1	23.9	17	-13.9	6+	0	23	-9.4	42	7	-11	3	5	0	94	51	1.3	28	19.7	SW	24	10	7	14	5.6	66
NEW HAMPSHIRE																																
CONCORD	104	1003.7	1016.9	6.5	-6.6	-0.1	-0.2	18.9	27	-17.2	18	0	27	-6.1	66	51	-19	15	12	0	617	254	1.8	28	16.5	W	6	7	9	15	6.5	53
MT WASHINGTON OBS	1909			-5.5	-15.1	-10.3	0.9	7.2	5	-26.9	18	0	31			339	97	47	20	2	1321	492			55.0Y	SW	13	3	8	20	7.7	37
NEW JERSEY																																
ATLANTIC CITY	20	1016.3	1018.5	11.9	0.5	6.2	1.2	23.9	5	-10.0	18	0	16	0.0	69	35	-74	13	12	1	84	76	1.1	24	14.3	20	13	6	7	18	6.8	61
ATLANTIC CITY U	3			10.7	3.8	7.2	2.0	17.8	5	-3.9	18	0	5			23	-73	8	10						16.1	WNW	16					
NEWARK	9	1016.9	1018.0	11.7	1.6	6.7	1.9	23.9	20+	-7.2	18	0	13	-1.7	59	50	-41	20	11	3	107	102	1.8	27	16.5	29	21	5	9	17	6.8	
TRENTON U	17			12.5	2.2	7.3	2.2	24.4	5	-6.1	18	0	12			55	-42	13	13		122	102			20.6	NW	21	6	9	16	6.8	54
NEW MEXICO																																
ALBUQUERQUE	1619	835.1	1012.7	15.4	-1.8	6.8	-0.8	25.6	25	-8.3	5	0	25	-10.0	35	9	-10	1	6	1	13	T	1.4	27	18.8	SE	3	10	13	8	4.8	73
CLAYTON	1515			13.4	-2.8	5.3	0.7	25.6	25	-12.8	5	0	23			3	-14	2	4	0	51	25										
ROSWELL	1117	887.2	1011.3	20.9	3.6	12.3	2.7	30.0	25	-3.9	5	0	6	-7.2	29	4	-6	6	1		61	T	2.0	21	18.8	N	26+	16	6	9	4.2	85
NEW YORK																																
ALBANY	84	1006.8	1017.8	8.8	-3.6	2.6	1.8	22.8	20	-12.8	18	0	22	-4.4	62	91	25	27	13	1	376	2540	1.9	25	17.0	NW	17	4	10	17	7.3	62
BINGHAMTON	485	956.7	1016.9	7.0	-3.1	1.9	2.3	21.7	20	-15.6	18	0	22	-3.9	66	71	-2	18	20	1	295	152	2.7	23	15.6	W	13	1	10	20	8.0	41
BUFFALO	218	988.8	1015.1	8.1	-2.3	2.9	2.8	22.8	20	-12.2	17	0	22	-1.7	76	142	70	34	18	4	439	127	2.9	23	22.4	SW	27	1	7	23	8.6	36
NEW YORK U	40	1015.2	1018.4	11.1	2.7	6.9	1.8	22.2	20	-7.2	18	0	8			74	-19	25	12	2	112	102	0.8	36	11.2	NW	21+					70
NEW YORK KENNEDY	4	1017.6	1018.3	10.0	2.3	6.2	2.1	18.3	29+	-6.1	18	0	11	-1.1	65	58	-37	21	13	1	135	127	1.5	28	19.2	30	21	7	12	12	6.1	
NEW YORK LA GUARDIA	3	1017.3	1018.3	11.2	3.0	7.1	2.3	22.2	5	-5.0	18	0	8	-1.7	58	58	-43	21	11	2	71	76	1.5	28	17.0	W	13	6	12	13	6.6	
ROCHESTER	167	994.9	1015.6	8.2	-2.4	2.9	2.3	23.9	20	-11.7	18	0	22	-1.7	74	90	25	19	14	3	386	203	2.7	24	18.8	SW	27+	1	6	24	8.6	38
SYRACUSE	125	1000.7	1016.0	8.2	-3.1	2.6	1.9	23.9	20	-17.2	18	0	24	-3.3	66	117	40	21	21	2	422	229	1.8	23	19.7	W	28	1	6	24	8.5	43
NORTH CAROLINA																																
ASHEVILLE	652	941.8	1018.6	17.5	3.1	10.3	2.6	26.7	3	-5.6	18	0	10	5.0	74	126	8	45	13	1	T	0	0.5	28	14.3	36	21+	7	11	13	6.4	53

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear 0-3	No. of days (sunrise to sunset): Partly cloudy 4-7	No. of days (sunrise to sunset): Cloudy 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
NORTH CAROLINA																																
CAPE HATTERAS A	3	1019.6	1019.9	18.1	10.0	14.1	3.7	23.3	8+	3.3	8+	0	0	9.4	74	69	-28	27	9	2	0	0	10.0	27	13.9	28	16	12	4	15	6.5	56
CHARLOTTE	224	991.7	1018.7	18.9	6.9	12.6	2.3	28.9	3	-2.8	18	0	4	5.6	67	111	+46	27	12	1	0	0	11.4	14	16.1	NW	16	6	4	16	6.7	58
GREENSBORO	272	986.8	1018.4	18.5	8.7	12.1	3.3	29.9	4	-4.4	18	0	5	5.0	65	61	-33	23	11	0	0	0	11.4	21	17.9	NW	16	5	4	17	6.8	57
RALEIGH	132	1003.1	1018.4	20.6	6.3	13.4	3.9	30.6	4+	-3.9	18	0	3	3.9	66	81	-7	26	10	3	0	0	11.5	21	18.4	31	16	7	8	16	6.9	57
WILMINGTON	9	1018.6	1019.9	22.3	9.4	16.0	3.6	31.1	3	0.6	18	0	0	11.0	72	65	-35	27	7	3	0	0	11.4	21	14.8	NW	16	7	5	18	7.1	56
NORTH DAKOTA																																
BISMARCK	502	952.4	1013.7	4.6	-9.8	-2.6	1.2	17.2	18	-30.6	5	0	30	-7.8	71	13	-5	7	6	0	165	127	1.7	21	17.4	NW	20	8	7	16	6.5	51
FARGO	273	979.7	1013.6	0.6	-10.6	-5.0	-0.7	14.4	23	-26.1	4	0	28	-8.3	74	28	4	13	8	0	356	254	1.9	21	21.0	NW	20	6	8	16	6.8	46
WILLISTON	479	963.1	1013.8	2.5	-10.8	-4.1	-0.1	20.6	31	-30.0	4	0	30	-8.3	75	19	3	8	9	0	371	254	1.8	28	16.5	N	11	9	10	12	6.7	61
OHIO																																
AKRON	369	970.5	1015.8	12.1	0.4	6.3	3.9	25.6	30	-10.6	17	0	18	-0.6	64	80	0	24	15	6	122	76	2.5	02	13.0	25	27+	4	9	18	7.4	
CINCINNATI ABBE OB	232			15.6	4.4	10.0	3.9	27.2	4	-7.2	17	0	10			50	-55	21	12					12.1	S	26						60
CLEVELAND	237	985.8	1015.4	12.6	1.8	7.2	4.9	26.7	30	-7.2	17	0	13	1.7	70	73	2	20	14	3	147	127	2.3	04	14.2	SW	5	3	7	21	7.0	48
COLUMBUS	247	985.8	1016.2	13.5	2.6	8.1	4.1	25.6	30+	-6.7	17	0	16	3.0	68	56	-32	20	15	4	95	T	2.5	03	14.2	SW	27	6	7	18	7.3	49
DAYTON	308	979.3	1015.8	13.9	2.1	8.0	4.1	25.0	30+	-8.3	17	0	17	2.2	71	75	+4	19	11	5	30	25	2.8	23	18.8	SW	27+	5	7	19	7.0	50
MANSFIELD	395			11.3	0.1	5.7	2.3	23.9	30	-12.2	17	0	17	0.0	70	101	29	32	12	5	66	51	3.4	21	16.5	23	27	5	8	18	7.4	
TOLEDO	204	989.2	1014.8	11.6	-0.3	5.3	3.2	25.0	30+	-11.7	22	0	19	-0.6	70	90	24	21	15	4	102	76	2.1	04	18.3	SW	5	4	9	18	7.2	49
YOUNGSTOWN	359	972.6	1015.7	11.9	0.5	6.2	4.4	26.7	30	-9.4	17	0	16	-1.1	61	102	20	25	14	4	127	102	2.2	24	14.3	24	27	3	7	21	7.9	
OKLAHOMA																																
OKLAHOMA CITY	390	968.2	1014.7	19.1	3.5	11.3	2.3	31.1	25+	-6.7	5	0	8	1.1	57	78	26	29	8	6	6	0	3.8	21	17.9	NW	26	10	11	10	5.6	72
TULSA	198	998.2	1014.4	18.1	3.9	11.1	2.0	28.9	2	-6.1	5	0	7	2.8	63	100	34	32	9	4	T	T	2.2	21	18.8	SW	29+	11	11	10	5.7	58
OREGON																																
ASTORIA	3	1018.3	1019.1	10.4	2.4	6.5	-0.4	15.6	16	-3.3	3	0	8	3.3	83	182	14	34	21	0	T	0	1.7	22	16.5	18	24	4	4	23	8.1	
BURNS	1268			8.2	-5.8	1.2	-1.1	17.2	30	-13.3	24	0	31			11	-12	4	11		25	76			05	SW	31	0	12	12	4.7	
EUGENE	104	1004.1	1019.6	12.2	1.4	6.8	-0.9	20.6	16	-3.9	6	0	9	3.2	77	158	45	51	15	0	23	5	1.0	21	14.8	20	1	1	6	24	8.5	
MEDFORD	398	971.9	1021.3	12.6	-0.6	6.0	-1.1	20.6	30	-5.6	5	0	18	0.6	73	29	-13	12	11	0	5	T	0.8	21	10.3	26	22	3	10	18	7.2	
PENDLETON	452	963.4	1017.8	11.5	0.5	6.0	-0.6	22.2	30	-6.7	4	0	11	-2.8	68	42	17	19	11	0	T	0	2.3	05	17.6	25	24	3	8	20	7.5	
PORTLAND	6	1017.6	1019.0	11.7	2.1	6.9	-0.7	18.9	16	-3.9	3	0	9	1.7	72	74	-18	19	16	0	T	0	1.7	22	17.6	SW	24	2	3	26	8.4	61
SALEM	60	1011.5	1019.1	11.2	0.4	5.8	-1.5	18.9	16	-6.7	3	0	12	1.1	75	93	-17	27	18	0	8	3	2.1	04	14.8	18	24	3	4	24	8.0	
SEXTON SUMMIT A	1169	883.8	1019.0	6.6	-2.2	2.2	-1.1	15.6	16	-7.2	3	0	25			79	-8	26	14		729	229	1.8	08	12.1	22	24					
PACIFIC AREA																																
GUAM TAGUAC A	110			28.4	22.1	25.2	-0.2	28.9	24+	20.0	21	0	0			230	155	38	23		0	0			10.7		28	1	14	16	7.4	70
JOHNSTON	3	1012.9	1013.5	25.8	21.8	23.8	-0.9	26.7	31+	20.0	10+	0	0	20.0	78	164	32	28	20	1	0	0	3.4	7	17.9		12	1	17	12	6.7	78
KOROR A	29	1004.7		31.1	23.8	27.4	0.2	32.2	28	22.2	1	1	0			204	7	47	27	1	0	0	3.4	5	8.5	NW	27+	1	3	26	8.6	62
KWAJALEIN	3	1007.8		29.7	25.0	27.3	-0.3	30.6	26+	21.7	31	0	0			171	53	53	18	0	0	0	5.5	7	13.3		19+	1	13	17	7.6	
MAJURO	3	1008.1		29.1	23.8	26.4	-0.9	30.0	26+	21.7	30	0	0			398	183	76	26		0	0	4.8	8	13.9		30	1	7	21	8.4	55
PAGO PAGO	4	1010.2	1010.9	30.3	23.7	27.0	0.1	31.7	24	21.7	15+	0	0	23.3	80	103	-208	24	18	6	0	0	3.0	6	13.4		28+	1	10	14	7.0	64
PONAPE A	37			30.7	23.8	27.3	0.2	32.2	28+	20.6	30	3	0			443	261	146	25	1	0	0			8.9		12	1	6	25	8.7	64
TRUK MOEN ISLAND	2	1007.8		29.7	25.0	27.4	0.0	30.6	24+	22.2	30	0	0			145	-58	29	23	1	0	0	4.4	6	11.6		31	1	3	27	8.8	63
WAKE	3	1013.2	1013.4	28.1	22.4	25.3	-0.1	29.4	31+	20.0	15+	0	0	21.1	80	174	136	71	17	0	0	0	4.4	11	15.6	E	12	13	14	14	6.6	77
YAP A	12	1006.4		30.3	22.9	26.6	-0.6	31.7	27	20.6	28	0	0			223	81	45	23	0	0	0	4.2	7	8.9	NE	26+	0	11	21	8.1	69
PENNSYLVANIA																																
ALLENTOWN	218	1004.1	1018.3	10.9	-0.1	5.4	2.1	23.9	20	-8.9	18	0	18	-2.3	68	67	-25	21	11	2	171	178	1.7	27	16.1	31	21	6	8	17	6.6	
ERIE	222	998.5	1015.8	9.3	-1.7	3.8	3.3	23.3	30+	-8.9	17	0	22	-1.1	73	172	102	46	17	4	101	127	3.0	22	15.6	25	27	3	9	20	6.0	
HARRISBURG	103	1005.8	1018.7	11.8	1.7	6.8	1.8	24.4	20	-6.7	18+	0	13	0.6	68	87	-6	23	15	2	254	152	2.6	07	18.3	W	18	3	8	19	6.4	
PHILADELPHIA	3	1017.3	1018.3	13.6	2.3	7.9	2.4	26.1	5	-6.7	18	0	9	0.0	63	60	-33	26	10	1	175	152	1.0	08	22.4	NW	24	0	3	24	6.8	57
PITTSBURGH	367	971.9	1016.3	12.8	1.8	7.3	3.9	25.6	30	-8.3	18+	0	14			113	22	39	16	5	109	51	2.3	05	18.8	25	27	4	7	20	7.0	47
SCRANTON	288	983.4	1017.3	10.1	-0.1	5.0	2.8	22.8	2	-10.6	18	0	15	-2.8	69	55	-8	11	11	5	249	127	1.4	04	17.0	NW	17	1	14	16	7.1	42
WILLIAMSPORT	160	998.0	1017.4	11.0	0.2	5.6	2.6	23.9	20	-11.1	18	0	18	-2.8	69	70	-28	13	14	3	191	76	0.4	08	18.8	29	2	3	8	20	7.4	
RHODE ISLAND																																
BLOCK ISLAND	34			8.4	1.4	4.9	2.2	16.7	26	-7.8	18	0	11			92	-6	27	11		193	152										
PROVIDENCE	14	1015.4	1017.8	8.9	-1.1	3.9	1.2	20.6	20	-10.0	18	0	18	-1.7	70	87	-14	25	15	2	241	203	1.4	04	13.4	01	21+	8	10	13	6.5	56
SOUTH CAROLINA																																
CHARLESTON	12	1018.3	102 .1	23.3	10.3	16.8	3.2	30.0	31+	0.6	18	0	1	8.9	66	55	-61	22	9	4	6	0	1.5	18	10.7	20	9	7	11	13	6.5	74

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation					Snow, Ice pellets		Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No of days: Max 32.2 °C or above	No of days: Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No of days: 25 mm or more	No of days: With thunderstorms	Total	Maximum depth on ground	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Fastest mile (1.6 kilometers): Direction	Fastest mile (1.6 kilometers): Date	Clear 0-3	Partly cloudy, 4-7	Cloudy 8-10		
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
SOUTH CAROLINA																																
CHARLESTON J	3			22.1	13.5	17.8	3.9	30.6	30	4.4	17	0	0			90	-25	41	11		0	0										
COLUMBIA	65	1011.2	1019.2	23.4	8.8	16.1	3.8	31.1	4+	-1.7	18	0	2	8.3	65	133	14	70	11	1	0	0	1.1	22	11.2	28	16	6	7	18	7.1	59
GREENVILLE-SPRTNBRG	292	983.4	1018.4	19.1	5.3	12.2	1.7	29.4	3	-3.3	18+	0	5	5.6	67	185	50	45	15	3	0	0	1.1	22	11.6	W	13	7	9	15	6.4	57
SOUTH DAKOTA																																
ABERDEEN	395	965.5	1013.6	5.4	-7.1	-0.8	1.8	20.6	23	-22.8	3	0	28	-6.1	68	18	-6	9	7	0	173	102	1.5	31	17.9	35	12	8	9	14	6.3	
HURON	390	965.5	1013.3	6.2	-7.3	-0.5	1.2	23.9	23	-23.3	5	0	24	-6.1	70	19	-9	9	8	0	330	254	1.3	32	19.7	NW	12	8	9	14	6.3	64
RAPID CITY	964	900.8	1013.6	8.8	-6.1	1.3	1.8	20.0	18	-20.6	5	0	27			8	-17	5	7	0	109	51	2.8	34	25.5	NW	20	7	11	13	6.2	60
SIOUX FALLS	437	960.7	1013.3	7.3	-4.3	1.6	2.7	23.9	18	-17.8	5	0	26	-4.4	67	41	5	23	11	1	201	152	1.8	31	18.3	36	12	6	11	14	6.5	
TENNESSEE																																
BRISTOL	459	963.4	1018.0	17.9	4.2	11.1	3.4	27.8	4	-3.3	17	0	9	3.9	66	82	-17	21	12	2	T	0	1.3	25	13.4	30	16	4	11	16	6.9	
CHATTANOOGA	203	993.6	1018.3	18.3	5.0	12.1	2.2	27.8	4	-1.7	17	0	3	6.1	71	137	-6	26	16	4	0	0	0.7	23	9.8	22	24	5	8	18	7.2	53
KNOXVILLE	299	982.7	1018.0	17.7	5.2	11.4	1.5	27.8	4	-3.3	17	0	6	5.0	69	133	9	48	16	5	0	0	1.5	26	13.0	30	16	6	8	17	7.0	53
MEMPHIS	79	1006.8	1017.2	20.0	9.4	14.7	4.2	27.2	20+	-0.6	17	0	1	6.7	61	195	66	86	14	9	0	0	2.0	28	13.4	30	29+	7	7	17	6.7	58
NASHVILLE	180	995.8	1017.4	19.0	7.6	13.3	4.0	28.0	4	-1.7	7	0	2	6.7	66	135	8	44	11	3	T	0	2.0	31	11.2	21	20	8	5	18	6.7	58
OAK RIDGE R	274			17.1	2.8	9.9	1.3	26.7	4	-5.0	18	0	13			152	14	58	15		0	0			16.1Y		4	6	10	15	6.6	
TEXAS																																
ABILENE	544	951.2	1014.0	21.6	5.7	13.6	1.1	32.2	19	-3.3	21	1	6	1.1	49	8	-19	4	6	0	T	T	2.0	19	17.0	N	29	7	6	18	6.8	85
AMARILLO	1099	888.3	1012.3	16.4	-0.4	8.1	0.5	28.3	25	-10.6	5	0	19	-6.7	41	20	-1	16	4	3	107	102	2.1	24	18.3	27	4	14	8	9	4.8	86
AUSTIN	182	993.2	1015.1	22.4	10.0	16.7	1.4	32.8	20	1.7	17	1	0	9.4	68	54	6	21	12	7	0	0	0.7	13	15.2	N	30	3	8	20	7.6	31
BROWNSVILLE	6	1013.2	1013.7	26.4	16.9	21.7	1.8	32.8	30	7.8	17	1	0	16.7	77	33	15	22	6	3	0	0	3.3	14	15.2	SE	2	2	5	24	8.1	46
CORPUS CHRISTI	13	1012.5	1014.2	25.4	15.4	20.4	2.2	37.2	20	7.2	17	1	0	15.0	75	4	-24	2	5	1	0	0	3.4	12	17.9	SE	24	2	6	23	8.0	33
DALLAS - FORT WORTH	168	994.2	1015.3	21.0	9.4	15.2	2.4	29.4	?	2.8	17+	0	0	6.1	60	58	-6	22	8	5	T	0	1.7	18	16.5	19	4	4	11	16	7.3	
DEL RIO	313	977.3	1013.1	25.8	12.4	19.2	2.2	33.9	26+	5.0	31	3	0	5.0	49	4	-15	2	3	2	0	0	2.1	10	10.3	31	8	8	4	19	6.8	
EL PASO	1194	879.8	1011.5	22.1	4.4	13.3	0.7	29.4	25	-4.4	5	0	6	-8.3	25	T	-10	T	0	0	T	T	2.3	24	17.9	24	28+	15	9	7	4.1	92
GALVESTON	2			19.9	15.1	17.5	1.4	22.2	29+	8.9	14+	0	0			22	-44	12	9		0	0			13.4	SE	8					36
HOUSTON INTERCON	29	1012.5	1016.1	22.2	11.3	16.8	0.8	29.4	24	0.0	17	0	1	12.2	77	39	-29	15	12	2	0	0	2.0	12	12.5	1	30	1	6	24	8.5	33
LUBBOCK	992	901.5	1012.6	19.8	2.4	11.2	1.8	30.0	25	-7.8	5	0	4	-6.1	36	8	-17	6	2	2	T	0	2.1	23	21.5	24	11	11	10	10	8.1	76
MIDLAND	869	914.3	1012.4	22.2	5.6	13.9	1.5	31.1	19	-2.8	31	0	6	-3.3	38	8	-7	7	3	3	0	0	1.7	22	16.5	27	11	8	10	13	5.0	
PORT ARTHUR	4	1015.9		21.7	12.5	17.1	1.5	27.2	5	2.8	17	0	0	13.9		68	-9	24	13	4	0	0	2.2	14	13.9	S	8	2	4	25	8.7	40
SAN ANGELO	580	947.2	1013.9	21.8	7.2	14.5	0.6	30.6	25+	-4.4	14	0	3	2.2	50	8	-14	4	4	1	0	0	1.7	21	13.0	33	26+	6	8	17	6.8	
SAN ANTONIO	240	986.8	1014.6	23.7	11.6	17.7	1.7	33.9	20	1.1	17	2	0	8.9	64	30	-8	15	11	4	0	0	1.7	10	13.9	NE	30+	3	7	21	7.6	50
VICTORIA	39	1011.2	1015.2	23.9	13.0	18.4	1.6	30.0	29+	3.3	17	0	0	12.8	75	37	-11	27	9	1	0	0	2.0	11	17.4Y	N	16	2	5	24	8.3	
WACO	153	997.0	1015.2	22.2	9.5	15.8	1.8	31.1	20	0.0	17	0	1	8.3	67	41	-19	17	8	4	0	0	1.8	16	15.6	17	4	3	5	23	7.9	
WICHITA FALLS	303	977.7	1014.5	21.4	5.1	13.3	1.9	34.4	18	-2.2	6	3	5	3.3	58	48	7	42	5	5	0	0	1.4	20	17.0	24	29	8	8	15	6.3	
UTAH																																
MILFORD	1433	844.9	1017.5	9.2	-8.0	0.2	-3.2	20.6	24	-25.0	5	0	31			27	1	11	9		393	152			23.2	SW	1	11	7	13	5.4	75
SALT LAKE CITY	1288	871.0	1016.8	9.4	-2.6	3.4	-0.8	20.6	18	-9.4	12+	0	24	-4.4	61	48	7	14	10	1	475	76	0.8	22	17.0	NW	19+	8	9	14	6.3	68
WENDOVER	1291	870.0	1017.1	9.1	-2.7	3.2	-1.8	20.6	24	-10.0	5	0	27	-8.3	46	8	-5	4	6		23	25										
VERMONT																																
BURLINGTON	101	1003.4	1016.3	6.0	-4.4	0.8	2.4	21.7	27	-13.3	18	0	23	-6.1	63	60	11	12	15	0	498	178	1.9	21	16.5	S	27	3	8	20	7.8	44
VIRGINIA																																
LYNCHBURG	279	984.1		16.9	3.7	10.3	2.8	27.2	3	-5.0	18	0	10			103	15	41	11		15	T			15.2	S	21	7	11	13	6.3	62
NORFOLK	7	1018.0	1019.1	17.5	6.3	11.9	2.9	28.9	5	-3.3	18	0	1	5.0	66	54	-31	32	9	1	0	0	1.1	23	15.6	32	16	10	2	19	6.5	65
RICHMOND	50	1012.2	1018.5	19.0	3.0	11.4	3.2	28.9	5	-7.2	18	0	10	3.9	66	54	-31	33	10	0	25	25	1.2	21	15.2	W	13	8	5	18	7.0	53
ROANOKE	350	975.6	1018.0	17.5	3.4	10.4	3.1	28.9	3	-5.0	18	0	9	1.7	59	115	31	47	12	0	56	25	1.4	27	17.4	25	13	5	11	15	6.7	
WALLOPS ISLAND	3			13.2	4.5	8.8	2.2	25.0	1	-3.9	18	0	6			38	-69	23	6		0	0			29.1Y	N	21					
WASHINGTON																																
OLYMPIA	59	1010.2	1017.6	9.7	-0.6	4.6	-1.6	16.1	30	-6.7	5+	0	16	1.1	81	108	-14	26	19	0	T	0	2.1	21	10.3	18	20+	4	2	25	8.2	
QUILLAYUTE	58	1009.5	1016.9	8.2	0.6	4.4	-1.2	15.6	16	-6.1	5	0	14	1.7	86	261	87	72	23	1	221	152	1.0	20	11.6	NW	10	3	4	24	8.3	24
SEATTLE U	4			10.3	3.0	6.7	-0.8	16.1	16	-2.2	5+	0	6			92	10	26	18		T	T			22.4Y		24+					
SEATTLE-TACOMA	122	1001.0	1017.9	9.0	1.3	5.2	-1.6	15.6	30	-4.4	4	0	11	1.7	83	69	-23	14	18	0	5	T	2.0	19	17.0	SW	24	4	5	22	7.2	24
SPOKANE	718	930.6	1016.0	6.3	-2.0	1.7	-1.3	15.0	30	-13.3	4	0	24	-4.4	65	21	-18	9	11	1	117	25	2.6	20	19.7	SW	24	3	8	20	7.8	47
STAMPEDE PASS R	1204	876.7		0.4	-5.1	-2.3	-1.2	7.2	30	-12.2	3	0	31			274	47	43	21		2319	3327						2	5	24	8.3	
WALLA WALLA U	389			11.4	1.3	6.4	-1.2	22.2	30	-7.8	4	0	9			40	5	13	10		13	25			17.0	SW	24	2	7	22	7.7	50
YAKIMA	321	978.3	1017.6	11.0	-3.1	3.9	-1.5	18.3	30	-9.4	3	0	25	-3.9	60	16	3	16	3	0	T	T	2.3	28	18.3	22	24	5	9	17	6.8	

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear 0.3	No. of days (sunrise to sunset): Partly cloudy 4.7	No. of days (sunrise to sunset): Cloudy, 8.10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
WEST INDIES																																
SAN JUAN P.R.	4	1015.2	1017.7	28.0	21.8	24.9	0.3	29.4	17	20.0	7	0	0	18.1	68	59	--	10	18	6	0	0	4.1	8	12.5	E	20	10	14	2	4.9	79
WEST VIRGINIA																																
BECKLEY	783	928.5	1017.6	14.7	2.7	8.7	4.2	25.6	4	-9.4	17	0	13	1.1	63	84	+23	24	13	1	97	51	2.7	22	25.6	36	17	5	8	18	7.4	
CHARLESTON	984	883.1	1017.3	18.0	3.7	10.9	3.9	28.9	4	-5.6	17	0	9	2.2	59	107	5	41	13	3	137	25	2.1	23	17.4	29	5	5	11	15	6.7	
ELKINS	494	945.8		15.1	-1.0	7.1	3.3	26.1	30	-13.9	18	0	18			81	-19	27	13		218	127						7	8	16	6.8	
HUNTINGTON	252	986.8	1017.0	17.3	4.8	11.1	4.2	28.3	4	-4.4	17	0	10	1.7	55	99	-4	44	15	3	157	51	1.8	25	32.5	28	27	5	8	18	7.2	
PARKERSBURG	187			16.3	3.6	9.9	3.9	27.8	30+	-6.7	17	0	11			71	-24	25	12		122	51			17.9	N	27					66
WISCONSIN																																
GREEN BAY	208	986.5	1012.5	4.1	-5.4	-0.7	1.2	16.7	26	-16.7	8	0	26	-5.0	71	93	5	20	12	4	292	305	1.4	27	15.6	SW	24	4	9	18	7.3	46
LA CROSSE	198	986.5	1013.7	6.4	-4.5	0.9	1.4	22.8	19	-15.5	6	0	24	-3.9	73	72	20		10	1	142		0.9	28								
MADISON	262	980.4	1012.5	8.3	-3.4	2.5	3.5	24.4	19	-11.7	6	0	24	-2.2	71	121	72	47	13	5	81	25	1.7	24	13.4	SW	29+	4	7	20	7.6	48
MILWAUKEE	205	987.5	1013.0	8.3	-0.9	3.7	4.0	23.3	19	-10.0	6	0	19	-2.8	69	174	110	59	13	7	53	25	2.5	24	21.5	SW	9	2	10	19	7.8	48
WYOMING																																
CASPER	1827	832.4	1013.1	7.2	-7.2	0.0	0.6	16.7	18	-18.9	3	0	29	-8.9	57	13	-10	4	8	0	185	51	4.0	24	16.5	2	11	9	9	13	6.0	
CHEYENNE	1867	866.0	1012.8	6.7	-7.9	-0.6	-0.4	16.1	23+	-20.0	5	0	28	-11.7	47	8	-19	4	5	0	229	203	4.5	29	22.4	W	19+	8	13	10	5.4	66
LANDER	1898	824.2	1013.0	7.4	-7.0	0.2	0.6	17.2	18	-16.1	5	0	30	-10.0	51	11	-19	6	7	0	193	102	1.0	24	15.2	S	24	9	10	12	5.7	75
SHERIDAN	1209	874.4		7.2	-8.1	-0.4	0.2	20.0	31	-25.0	3	0	30	-8.9	57	11	-20	5	6	0	206	76	2.4	30	17.9	SW	23	7	12	12	6.1	72

HEATING DEGREE DAYS

(Base 65°F.)

MARCH 1976

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	213	2451	2708
HUNTSVILLE	303	2867	3125
MOBILE	100	1382	1644
MONTGOMERY	197	2071	2185
ALASKA			
ANCHORAGE	1260	9271	9125
ANNETTE	867	5718	5585
BARROW	2501	17515	15905
BARTER ISLAND	2588	17329	15759
BETHEL	1821	11892	10814
BETTLES	1877	14371	13598
BIG DELTA	1566	12804	11793
COLD BAY	1324	8074	7529
FAIRBANKS	1631	13139	12502
GULKANA	1544	12110	11904
HOMER	1184	8584	8271
JUNEAU	1006	7333	7306
KING SALMON	1533	10290	9454
KODIAK	1128	7751	6882
KOTZEBUE	1993	13882	12774
MC GRATH	1758	13789	12399
NOME	1922	12844	11421
ST. PAUL ISLAND	1612	9475	8368
SUMMIT	1696	12448	11787
TALKEETNA	1426	10503	9801
UNALAKLEET			
VALDEZ	1107	8394	8592
YAKUTAT	1057	7783	7534
ARIZONA			
FLAGSTAFF	912	5617	5954
PHOENIX	134	1037	1492
TUCSON	221	1373	1671
WINSLOW	687	4390	4247
YUMA	100	862	981
ARKANSAS			
FORT SMITH	353	3003	3187
LITTLE ROCK	284	2693	3194
CALIFORNIA			
BAKERSFIELD	243	1876	2023
BISHOP	573	3724	3793
BLUE CANYON	816	4352	4449
EUREKA U	590	3851	3538
FRESNO	385	2718	2408
LONG BEACH	165	915	1364
LOS ANGELES	206	986	1439
LOS ANGELES U	215	1061	1036
MT SHASTA R	781	4870	4780
OAKLAND	397	2612	2332
RED BLUFF	405	2534	2398
SACRAMENTO	315	2153	2476
SANDBERG R			
SAN DIEGO	148	900	1232
SAN FRANCISCO	427	2695	2421
SAN FRANCISCO U	378	2399	2338
SANTA MARIA	385	2363	2338
STOCKTON	412	2616	2510
COLORADO			
ALAMOSA	1010	7387	7284
COLORADO SPRINGS	891	5117	5505
DENVER	859	4850	5158
GRAND JUNCTION	807	5329	5048
PUEBLO	814	4685	4813
CONNECTICUT			
BRIDGEPORT	762	4351	4714
HARTFORD	759	5083	5581
DELAWARE			
WILMINGTON	567	3936	4431
DIST.OF COLUMBIA			
WASHINGTON DULLES	625	4304	4517
WASHINGTON NATIONAL	415	3097	3874
FLORIDA			
APPALACHICOLA U	85	1333	1331
DAYTONA BEACH	34	835	880
FORT MYERS	5	397	457
JACKSONVILLE	79	1347	1303
KEY WEST	0	57	64
LAKELAND U	17	625	669
MIAMI	0	202	206
ORLANDO	18	659	720
PENSACOLA	103	1293	1341
TALLAHASSEE	110	1562	1529
TAMPA	18	666	709
WEST PALM BEACH	4	306	299
GEORGIA			
ATHENS	245	2440	2824
ATLANTA	265	2611	2924
AUGUSTA	167	2063	2447
COLUMBUS	179	2051	2283
MACON	168	2000	2168
ROME	308	2836	3155
SAVANNAH	134	1675	1889
IDAHO			
BOISE	858	5051	5004
LEWISTON	738	4456	4707
POCATELLO	999	5881	5998
ILLINOIS			
CAIRO U	328	3063	3619
CHICAGO O HARE	681	4947	5726
CHICAGO MIDWAY	674	4900	5440
MOLINE	731	5133	5755
PEORIA	648	5076	5485
ROCKFORD	813	5761	6073
SPRINGFIELD	601	4502	5051
INDIANA			
EVANSVILLE	417	3788	4266
FORT WAYNE	656	4963	5499
INDIANAPOLIS	564	4559	5020
SOUTH BEND	658	4836	5675
IOWA			
BURLINGTON	697	4967	5545
DES MOINES	780	5104	6033
DUBUQUE	877	5972	6456
SIOUX CITY	881	5749	6257
WATERLOO	897	6086	6619
KANSAS			
CONCORDIA	707	4491	5070
DODGE CITY	631	4019	4566
GOODLAND	815	4692	5359
TOPEKA	599	4277	4783
WICHITA	575	3939	4315
KENTUCKY			
COVINGTON	558	4109	4582
LEXINGTON	468	3964	4313
LOUISVILLE	405	3517	4249
LOUISIANA			
ALEXANDRIA	177	1790	2129
BATON ROUGE	118	1536	1637
LAKE CHARLES	122	1392	1472
NEW ORLEANS	98	1409	1436
SHREVEPORT	202	1760	2097
MAINE			
CARIBOU	1302	8396	8139
PORTLAND	1030	6306	6342
MARYLAND			
BALTIMORE	518	3627	4279
MASSACHUSETTS			
BLUE HILL OBS R	847	5149	5449
BOSTON	733	4384	4884
WORCHESTER	920	5736	5901
MICHIGAN			
ALPENA	1061	6807	7166
DETROIT	724	4822	5457
DETROIT METRO	757	5285	5620
FLINT	809	5467	6097
GRAND RAPIDS	835	5643	5932
HOUGHTON LAKE	1054	6718	7145
LANSING	826	5736	6021
MARQUETTE U	1128	6691	6969
MUSKEGON	841	5323	5919
SAULT STE MARIE	1299	7627	7693
MINNESOTA			
DULUTH	1325	8270	8286
INTERNATIONAL FALLS	1475	9056	9113
MINNEAPOLIS	1031	6559	7226
ROCHESTER	1021	6506	7242
ST CLOUD	1207	7673	7796
MISSISSIPPI			
JACKSON	201	2020	2220
MERIDIAN	236	2313	2302
MISSOURI			
COLUMBIA REGIONAL	566	4180	4636
KANSAS CITY	616	4300	4724
ST JOSEPH	652	4434	4979
ST LOUIS	505	4009	4365
SPRINGFIELD	460	3717	4191
MONTANA			
BILLINGS	1015	5930	6189
GLASCOW	1099	7129	7808
GREAT FALLS	1030	6198	6475
HAVRE	1055	6484	7579
HELENA	1064	6688	6926
KALISPELL	1028	6634	7178
MILES CITY	999	6478	6893
MISSOULA	929	6319	6700
NEBRASKA			
GRAND ISLAND	808	5360	5740
LINCOLN	792	5132	5611
NORFORK	854	5756	6241
NORTH PLATTE	956	6242	5918
OMAHA	757	4905	5490
SCOTTSBLUFF	874	5438	5839
VALENTINE	969	6122	6378
NEVADA			
ELKO	967	6002	6242
ELY	1058	6276	6392
LAS VEGAS	357	2192	2465
RENO	821	5144	5003
WINNEMUCCA	841	4918	5524
NEW HAMPSHIRE			
CONCORD	1019	6810	6363
MT WASHINGTON OBS	1591	10813	11051
NEW JERSEY			
ATLANTIC CITY	668	4299	4407
ATLANTIC CITY U	612	3743	4063
NEWARK	645	4128	4492
TRENTON U	604	3918	4428
NEW MEXICO			
ALBUQUERQUE	634	4107	3952
CLAYTON	716	4248	4566
ROSWELL	334	2699	3492
NEW YORK			
ALBANY	871	5674	6053
BINGHAMTON	910	5896	6281
BUFFALO	853	5463	5945
NEW YORK U	630	4059	4324
NEW YORK KENNEDY	672	4043	4534
NEW YORK LA GUARDIA	618	3908	4365
ROCHESTER	858	5415	5821
SYRACUSE	872	5578	5805
NORTH CAROLINA			
ASHEVILLE	439	3590	3844
CAPE HATTERAS R	244	2012	2496
CHARLOTTE	321	2692	3039
GREENSBORO	357	3014	3563
RALEIGH	300	2759	3286
WILMINGTON	183	1807	2329
NORTH DAKOTA			
BISMARCK	1163	7206	7923
FARGO	1296	7701	8159
WILLISTON	1247	7754	8003
OHIO			
AKRON	666	4790	5465
CINCINNATI ABBE OB	469	3867	4412
CLEVELAND	614	4874	5369
COLUMBUS	570	4548	5095
DAYTON U	570	4462	5049
MANSFIELD	699	5121	5143
TOLEDO	717	5378	5622
YOUNGSTOWN	672	5152	5607
OKLAHOMA			
OKLAHOMA CITY	406	2907	3479
TULSA	407	3058	3476
OREGON			
ASTORIA	651	4015	4130
BURNS U	949	5953	5981
EUGENE	636	3656	3876
MEDFORD	679	4159	4142
PENDLETON	679	4063	4527
PORTLAND	632	3706	3968
SALEM	693	4086	3968
SEXTON SUMMIT R	895	5088	4991
PENNSYLVANIA			
ERIE	804	5294	5829
HARRISBURG	639	4234	4726
PHILADELPHIA	572	3819	4376
PITTSBURGH	605	4781	5252
PITTSBURGH U	558	4325	4725
SCRANTON	737	4932	5535
WILLIAMSPORT	704	4913	5307
RHODE ISLAND			
BLOCK ISLAND	740	4306	4751
PROVIDENCE	798	4893	5146
SOUTH CAROLINA			
CHARLESTON	146	1762	2072
CHARLESTON U	100	1364	1852
COLUMBIA	176	2047	2503
GRNVLLE-SPRTNBRG	345	2774	2990
SOUTH DAKOTA			
ABERDEEN	1063	6816	7397
HURON	1043	6663	7134
RAPID CITY	940	5830	6259
SIOUX FALLS	929	6480	6947
TENNESSEE			
BRISTOL	404	3334	3938
CHATTANOOGA	340	3208	3289
KNOXVILLE	380	3193	3238
MEMPHIS	238	2472	3014
NASHVILLE	303	2877	3475
OAK RIDGE	459	3573	3647
TEXAS			
ABILENE	296	2321	2495
AMARILLO	567	3508	3817
AUSTIN	173	1443	1693
BROWNSVILLE	22	570	650
CORPUS CHRISTI	45	772	930
DALLAS FT WORTH	222	1858	2294
DEL RIO	76	1214	1507
EL PASO	278	2450	2589
GALVESTON	82	1004	1204
HOUSTON INTERCON	135	1416	1411
LUBBOCK	392	2883	3326
MIDLAND	261	2198	2523
PORT ARTHUR	128	1400	1485
SAN ANGELO	237	2079	2166
SAN ANTONIO	143	1411	1539
VICTORIA	95	1066	1212
WACO	204	1683	2002
WICHITA FALLS	318	2386	2779
UTAH			
MILFORD	1006	5774	5522
SALT LAKE CITY	826	5102	5184
WENDOVER	837	5276	5125
VERMONT			
BURLINGTON	973	6577	6822
VIRGINIA			
LYNCHBURG	443	3517	3888
NORFORK	362	2674	3209
RICHMOND	386	3057	3649
ROANOKE	438	3390	3923
WALLOPS ISLAND	525	3187	3793
WASHINGTON			
OLYMPIA	760	4686	4488
QUILLAYUTE	770	4685	4647
SEATTLE	645	3730	3887
SEATTLE-TACOMA	731	4055	4216
SPOKANE	922	5727	5797
STAMPEDE PASS R	1147	7385	7302
WALLA WALLA U	660	3938	4241
YAKIMA	795	5012	5211
WEST VIRGINIA			
BECKLEY	533	4217	4944
CHARLESTON	427	3588	4180
ELKINS	625	4592	5217
HUNTINGTON	422	3564	4205
PARKERSBURG U	474	3939	4309
WISCONSIN			
GREEN BAY	1057	6749	7033
LA CROSSE	964	6260	6632
MADISON	877	6034	6770
MILWAUKEE	818	5560	6397
WYOMING			
CASPER	1017	6209	6351
CHEYENNE	1048	5904	6036
LANDER	1006	6686	6674
SHERIDAN	1040	6261	6523

COOLING DEGREE DAYS

(Base 65°F.)

MARCH 1970

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM	25	33	45
HUNTSVILLE	14	17	27
MOBILE	74	91	99
MONTGOMERY	23	26	65
ALASKA			
ANCHORAGE	0	0	0
ANNETTE	0	0	0
BARROW	0	0	0
BARTER ISLAND	0	0	0
BETHEL	0	0	0
BETTLES	0	0	0
BIG DELTA	0	0	0
COLD BAY	0	0	0
FAIRBANKS	0	0	0
GULKANA	0	0	0
HOMER	0	0	0
JUNEAU	0	0	0
KING SALMON	0	0	0
KODIAK	0	0	0
KOTZEBUE	0	0	0
MC GRATH	0	0	0
NOME	0	0	0
ST. PAUL ISLAND	0	0	0
SUMMIT	0	0	0
TALKEETNA	0	0	0
UNALAKLEET			
VALDEZ	0	0	0
YAKUTAT	0	0	0
ARIZONA			
FLAGSTAFF	0	0	0
PHOENIX	34	44	35
TUCSON	14	16	24
WINSLOW	0	0	0
YUMA	42	52	109
ARKANSAS			
FORT SMITH	9	13	15
LITTLE ROCK	27	32	14
CALIFORNIA			
BAKERSFIELD	15	21	6
BISHOP	0	0	0
BLUE CANYON	0	0	0
EUREKA U	0	0	0
FRESNO	2	2	0
LONG BEACH	17	51	7
LOS ANGELES	7	38	12
LOS ANGELES U	20	45	34
MT SHASTA R	0	0	0
OAKLAND	0	0	0
RED BLUFF	0	0	0
SACRAMENTO	1	1	0
SANDBERG R			
SAN DIEGO	10	24	10
SAN FRANCISCO	0	0	0
SAN FRANCISCO U	0	0	0
SANTA MARIA	0	0	0
STOCKTON	0	0	0
COLORADO			
ALAMOSA	0	0	0
COLORADO SPRINGS	0	0	0
DENVER	0	0	0
GRAND JUNCTION	0	0	0
PUEBLO	0	0	0
CONNECTICUT			
BRIDGEPORT	0	0	0
HARTFORD	0	0	0
DELAWARE			
WILMINGTON	0	0	0
DIST.OF COLUMBIA			
WASHINGTON DULLES	0	0	0
WASHINGTON NATIONAL	1	5	0
FLORIDA			
APPALACHICOLA U	46	52	92
DAYTONA BEACH	136	184	182
FORT MYERS	213	341	353
JACKSONVILLE	85	101	121
KEY WEST	382	690	706
LAKELAND U	226	331	270
MIAMI	336	572	478
ORLANDO	194	287	260
PENSACOLA	59	75	117
TALLAHASSEE	51	55	102
TAMPA	199	279	268
WEST PALM BEACH	251	401	394
GEORGIA			
ATHENS	11	13	14
ATLANTA	8	9	12
AUGUSTA	30	30	37
COLUMBUS	25	30	47
MACON	28	32	59
ROME	7	7	13
SAVANNAH	68	80	72
HAWAII			
HILO	214	601	553
HONOLULU	275	762	678
KAHULUI	248	640	618
LIHUE	244	760	583
IDAHO			
BOISE	0	0	0
LEWISTON	0	0	0
POCATELLO	0	0	0
ILLINOIS			
CAIRO U	13	13	16
CHICAGO O HARE	0	0	0
CHICAGO MIDWAY	2	2	0
MOLINE	0	0	0
PEORIA	0	0	0
ROCKFORD	0	0	0
SPRINGFIELD	3	3	0
INDIANA			
EVANSVILLE	6	6	11
FORT WAYNE	0	0	0
INDIANAPOLIS	0	0	0
SOUTH BEND	1	1	0
IOWA			
BURLINGTON	0	0	0
DES MOINES	0	0	0
DUBUQUE	0	0	0
SIOUX CITY	0	0	0
WATERLOO	0	0	0
KANSAS			
CONCORDIA	0	0	0
DODGE CITY	4	4	0
GOODLAND	0	0	0
TOPEKA	1	1	8
WICHITA	2	2	8
KENTUCKY			
COVINGTON	6	6	0
LEXINGTON	9	M	10
LOUISVILLE	21	21	10
LOUISIANA			
ALEXANDRIA	63	86	51
BATON ROUGE	82	109	85
LAKE CHARLES	70	93	104
NEW ORLEANS	100	122	118
SHREVEPORT	58	86	47
MAINE			
CARIBOU	0	0	0
PORTLAND	0	0	0
MARYLAND			
BALTIMORE	0	1	0
MASSACHUSETTS			
BLUE HILL OBS R	0	0	0
BOSTON	0	0	0
WORCHESTER	0	0	0
MICHIGAN			
ALPENA	0	0	0
DETROIT	0	0	0
DETROIT METRO	0	0	0
FLINT	0	0	0
GRAND RAPIDS	0	0	0
HOUGHTON LAKE	0	0	0
LANSING	0	0	0
MARQUETTE U	M	0	0
MUSKEGON	0	0	0
SAULT STE MARIE	0	0	0
MINNESOTA			
DULUTH	0	0	0
INTERNATIONAL FALLS	M	0	0
MINNEAPOLIS	0	0	0
ROCHESTER	0	0	0
ST CLOUD	0	0	0
MISSISSIPPI			
JACKSON	52	69	68
MERIDIAN	33	41	68
MISSOURI			
COLUMBIA REGIONAL	0	0	8
KANSAS CITY	0	0	7
ST JOSEPH	0	M	0
ST LOUIS	8	8	9
SPRINGFIELD	7	7	9
MONTANA			
BILLINGS	0	0	0
GLASCOW	0	0	0
GREAT FALLS	0	0	0
HAVRE	0	0	0
HELENA	0	0	0
KALISPELL	0	0	0
MILES CITY	0	0	0
MISSOULA	0	0	0
NEBRASKA			
GRAND ISLAND	0	0	0
LINCOLN	0	0	0
NORFORK	0	0	0
NORTH PLATTE	0	0	0
OMAHA	0	0	0
SCOTTSBLUFF	0	0	0
VALENTINE	0	0	0
NEVADA			
ELKO	0	0	0
ELY	0	0	0
LAS VEGAS	2	2	14
RENO	0	0	0
WINNEMUCCA	0	0	0
NEW HAMPSHIRE			
CONCORD	0	0	0
MT WASHINGTON OBS	0	0	0
NEW JERSEY			
ATLANTIC CITY	0	0	0
ATLANTIC CITY U	0	0	0
NEWARK	0	0	0
TRENTON U	0	0	0
NEW MEXICO			
ALBUQUERQUE	0	0	0
CLAYTON	0	0	0
ROSWELL	7	7	0
NEW YORK			
ALBANY	0	0	0
BINGHAMTON	0	0	0
BUFFALO	0	0	0
NEW YORK U	0	0	0
NEW YORK KENNEDY	0	0	0
NEW YORK LA GUARDIA	0	0	0
ROCHESTER	0	0	0
SYRACUSE	0	0	0
NORTH CAROLINA			
ASHEVILLE	0	0	0
CAPE HATTERAS R	11	11	12
CHARLOTTE	11	13	15
GREENSBORO	14	18	11
RALEIGH	31	34	12
WILMINGTON	58	77	31
NORTH DAKOTA			
BISMARCK	0	0	0
FARGO	0	0	0
WILLISTON	0	0	0
OHIO			
AKRON	0	0	0
CINCINNATI ABBE OB	13	13	7
CLEVELAND	3	3	0
COLUMBUS	3	3	0
DAYTON U	2	2	0
MANSFIELD	0	0	0
TOLEDO	0	0	0
YOUNGSTOWN	0	0	0
OKLAHOMA			
OKLAHOMA CITY	23	24	11
TULSA	7	13	10
OREGON			
ASTORIA	0	0	0
BURNS U	0	0	0
EUGENE	0	0	0
MEDFORD	0	0	0
PENDLETON	0	0	0
PORTLAND	0	0	0
SALEM	0	0	0
SEXTON SUMMIT R	0	0	0
PACIFIC AREA			
GUAM TAGUAC R	392	1088	1119
JOHNSTON	315	988	1048
KOROR R	515	1512	1441
KWAJALEIN	511	1452	1479
MAJURO	459	1334	1446
PAGO PAGO	492	1391	1385
PONAPE R	507	1474	1414
TRUK MOEN ISLAND	509	1482	1452
WAKE	391	1110	1102
YAP R	469	1355	1407
PENNSYLVANIA			
ALLENTOWN	0	0	0
ERIE	0	0	0
HARRISBURG	0	0	0
PHILADELPHIA	0	0	0
PITTSBURGH	1	1	0
SCRANTON	0	0	0
WILLIAMSPORT	0	0	0
RHODE ISLAND			
BLOCK ISLAND	0	0	0
PROVIDENCE	0	0	0
SOUTH CAROLINA			
CHARLESTON	73	84	61
CHARLESTON U	79	93	68
COLUMBIA	58	76	30
GREENVILLE-SPARTNBG	11	13	13
SOUTH DAKOTA			
ABERDEEN	0	0	0
HURON	0	0	0
RAPID CITY	0	0	0
SIOUX FALLS	0	0	0
TENNESSEE			
BRISTOL	2	2	9
CHATTANOOGA	1	1	18
KNOXVILLE	4	4	24
MEMPHIS	44	51	63
NASHVILLE	28	29	19
OAK RIDGE	0	1	12
TEXAS			
ABILENE	40	61	29
AMARILLO	0	0	0
AUSTIN	85	142	76
BROWNSVILLE	210	354	358
CORPUS CHRISTI	170	279	199
DALLAS FT WORTH	39	91	45
DEL RIO	130	204	118
EL PASO	4	4	6
GALVESTON	40	46	110
HOUSTON INTERCON	75	123	97
LUBBOCK	0	1	9
MIDLAND	21	31	17
PORT ARTHUR	66	97	93
SAN ANGELO	29	41	42
SAN ANTONIO	113	178	88
VICTORIA	107	168	120
WACO	72	105	44
WICHITA FALLS	39	60	22
UTAH			
MILFORD	0	0	0
SALT LAKE CITY	0	0	0
WENDOVER	0	0	0
VERMONT			
BURLINGTON	0	0	0
VIRGINIA			
LYNCHBURG	3	3	0
NORFORK	11	25	8
RICHMOND	9	17	8
ROANOKE	8	8	0
WALLOPS ISLAND	0	0	0
WASHINGTON			
OLYMPIA	0	0	0
QUILLAYUTE	0	0	0
SEATTLE	0	0	0
SEATTLE-TACOMA	0	0	0
SPOKANE	0	0	0
STAMPEDE PASS R	0	0	0
WALLA WALLA U	0	0	10
YAKIMA	0	0	0
WEST INDIES			
SAN JUAN P.R.	375	1074	980
WEST VIRGINIA			
BECKLEY	4	2	0
CHARLESTON	17	18	7
ELKINS	0	0	0
HUNTINGTON	24	25	7
PARKERSBURG U	16	16	0
WISCONSIN			
GREEN BAY	0	0	0
LA CROSSE	0	0	0
MADISON	0	0	0
MILWAUKEE	0	0	0
WYOMING			
CASPER	0	0	0
CHEYENNE	0	0	0
LANDER	0	0	0
SHERIDAN	0	0	0

STORM SUMMARY

MARCH 1976

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				ϕ ALL OTHER			
	DEATHS	INJURIES	DAMAGE			DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS
Alabama	25	7		60	7			°4	C			6																6	4
Alaska *																													
Arizona *																													
Arkansas	11	3	6	76	7			3			2	5								,							,	,	
California												,	,						1	,									
Colorado												,	,																
Connecticut												4																	
Delaware	1	1		1	5					1	18	6																	
Florida	10	3			5			3				4																	
Georgia	6	1			6			2	2	2	3	5	3			5													
Hawaii *																													
Idaho											2	5															1		
Illinois	12	4	2	91	7			4		1	21	6																4	
Indiana	22	3	2	61	6			3	,			5	,																
Iowa																3								6					
Kansas	2	2			3			2				5																	
Kentucky	1	1		10	5					4	38	6																4	
Louisiana	6	3		35	6			5	5	1		6								4									
Maine																													
Maryland & DC	2	1			5					3	2	7																	
Massachusetts											12	6																3	
Michigan	18	1	3	81	7			4			3	6				5								°8	C			°6	C
Minnesota																		1	30	5								,	,
Mississippi	21	9	1	207	7			,	,	5		6	,			4													
Missouri	3	2	1	5	5			6			1	5												5				5	
Montana											1	1																	
Nebraska	1	1			3			2				6				3				7									
Nevada *																													
New Hampshire																				4									
New Jersey *																													
New Mexico *																													
New York	1	1			5						1	7	,			5				5		1	1	°8	C			6	
North Carolina											2	5																	7
North Dakota																				3	,								
Ohio	2	1			4			5			10	5				5													
Oklahoma	6	4	3	68	6			,	,		1	5																4	
Oregon										1	20	,	,														,	,	
Pacific *																													
Pennsylvania	8	2			6					2	,	6								3				6					
Puerto Rico *																													
Rhode Island												4																	
South Carolina	3	2		4	6						2	5	4																
South Dakota *																													
Tennessee	3	2			5						30	6																	
Texas	8	5		42	7		3	6	5			5	5			5												,	,
Utah												5							1	5			10	5					
Vermont *																													
Virginia	2	1			5					1		5																2	
Virgin Islands *																													
Washington										3	12	6	,																
West Virginia *																			,	,		1	,	°8	C				
Wisconsin																													
Wyoming *																													

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

MARCH 1976

Herbert J. Thompson, Office of Hydrology

The annual snowmelt runoff began during March in the Souris and Red River of the North Basins in North Dakota. Serious flooding occurred in lower Michigan with record stages on several streams, and in western New York from a combination of snowmelt and heavy rainfall. Serious flooding also occurred in the Peachtree Creek Basin around Atlanta, GA.

Major losses occurred in the East Gulf of Mexico Drainage, particularly in the Alabama-Tombigbee and Pearl River Basins, estimated at more than $7 million. Significant losses also were reported in Georgia and northern Illinois.

In the Ohio Basin the major flooding of February continued into March on the lower Wabash and Ohio Rivers with some additional flooding in the Wabash Basin and the Green River Basin in Kentucky. Some scattered flooding, generally rather minor in degree, occurred in the Atlantic Slope Drainage, the upper Mississippi, lower Missouri, White, Red and lower Mississippi Basins, and the West Gulf of Mexico Drainage.

The more significant hydrologic events are discussed in greater detail below.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	HUDSON BAY DRAINAGE		
Souris River	Flooding began in the Souris River Basin late in March and continued through April with record crest stages reached at most points during April. Above normal precipitation during the fall and winter resulted in near saturated soil conditions and a snowpack of up to 18 inches with water equivalent ranging from less than 1 to nearly 7 inches. The largest water contents were in the upper portion of the basin in Canada and the lower basin below Minot. Warm temperatures the last week of March started the runoff.	0	N.A.
Red River of the North Basin	The annual spring snowmelt runoff began the last week in March. Water content of the winter's accumulation of snow ranged from near zero in the southern (headwater) areas to several inches in the extreme northern (downstream) portion of the basin where depths of up to 18 inches were reported. Consequently flooding was confined to the lower (northern) portion of the basin and was generally rather minor in extent. The lower Buffalo and Wild Rice Rivers had crests 1.7 and 2.2 feet over flood stage, respectively, and in North Dakota the Turtle River reached 6.5 feet over flood stage at Manvel. The Red River crested 1.7 feet over flood stage at Fargo. Flooding extended into April on most streams and on several did not begin until early April.	0	N.A.
	GREAT LAKES - ST. LAWRENCE DRAINAGE		
Great Lakes Drainage in Michigan	Serious flooding occurred in portions of lower Michigan with the highest stages of record reported on the Rogue River at Rockford and the worst flooding since 1960 in the lower Grand River Basin. Rivers were high at the beginning of March from the flooding of February and precipitation for the month averaged about 200 percent of normal over the southern two-thirds of the State.	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	GREAT LAKES - ST. LAWRENCE DRAINAGE-Cont'd		
	The period of the 1st-5th was a prolonged stormy period with rain, ice storms, and rain-snow mixture. Amounts ranged from 1.5 to over 5 inches with the heaviest amounts in central lower Michigan. Most streams in southern lower Michigan exceeded flood stage with the most serious flooding in the lower Grand and portions of the Saginaw River Basin. The lower Grand crested nearly 4 feet over flood stage at Comstock Park, and the Rogue River, a tributary of the Grand, crested 2.3 feet over flood stage at Rockford. In the Saginaw Basin the Cass River crested 3.7 feet over flood stage at Vassar, the Flint and Tittabawassee Rivers 1.7 feet over flood stage at Flint and Midland, respectively, and the Saginaw 2.6 feet over flood stage at Saginaw. Elsewhere, about 2.5 feet of flooding occurred along the Clinton River and the Middle River Rouge at Garden City, and the Raisin River exceeded flood stage by 2.1 feet at Adrian. Several other streams exceeded flood stage by amounts ranging up to slightly over a foot. After this stormy period a heavy snowpack remained over northern lower Michigan, which by the 20th contained water equivalents of 3 to 5 inches. A warming trend set in which with some additional precipitation completely melted the snowpack in 2 to 3 days and caused extensive flooding. The most serious flooding was along the Muskegon River with crests 2 to 2.4 feet over flood stage and the northern portion of the Saginaw Basin where the Chippewa River crested 2.4 feet over flood stage at Mt. Pleasant and the Tittabawassee River 3.6 feet over flood stage at Midland. Record flooding was reported along the Au Sable and Cheboygan Rivers, but no stage data is received from these streams.		
Maumee River Basin	Precipitation during the stormy period of the 1st-5th totaled 1.5 to 3 inches over the Basin and resulted in flooding on the St. Marys, St. Josephs, and Tiffin Rivers, with crests at forecast points of 3.5 to 4 feet over flood stage. The Maumee crested a foot over flood stage at Defiance, OH. Flooding was generally limited to lower grade agricultural land with negligible damage at this season.	0	N.A.
Great Lakes Drainage in New York	Widespread flooding occurred over portions of this area during the first week. The most serious flooding was in the Tonawanda Creek Basin where damage totaled $1,123,000 as estimated by the Corps of Engineers. From 2 to 4 inches of precipitation fell over the western portion of western New York in a 72-hour period from the 1st to the 4th. In northern sections much of this fell as freezing rain and sleet which melted late on the 3d and the 4th, producing flooding on the Tonawanda, Ellicott, Black, and Oatka Creeks. Along Tonawanda Creek the	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	GREAT LAKES - ST. LAWRENCE DRAINAGE-Cont'd		
	flood was estimated to be 1 foot lower than the 1960 flood. Damage along Tonawanda Creek was estimated at $900,000 by the Corps of Engineers, Buffalo District. Damage occurred to highways, streets, and some residences. Ellicott Creek began rising on the 3d and crested on the 5th at 8.6 feet. Flood stage is estimated to be 6 feet. Damage was due to basement flooding and sewer backup and was estimated at $223,000 by the Buffalo Corps. In the Genesee River Basin, Oatka Creek at Garbutt crested at the highest stage since 1960. The weather situation over this Basin was especially complex with temperatures ranging from below freezing in the lower Basin to the 60's in the headwaters. No damage figures are available. Black Creek at Churchville crested above flood stage on the 6th with minor flooding. Along the main stem of the Genesee, minor flooding occurred at Portageville and below Mt. Morris Dam to Rochester. Mt. Morris Dam reached 85% of capacity on the 7th. This has only been exceeded once before, during "Agnes" in 1972. Much bank erosion occurred along the Genesee River throughout the month due to high river levels as the slow process of emptying Mt. Morris Reservoir continued. By month's end the water level behind the Dam was reduced to 8% of capacity. Serious flooding was reported at Morrisonville and Schuyler Falls, NY, on the 7th from an ice jam on the Saranac River.		
	ATLANTIC SLOPE DRAINAGE		
New England Streams	Ice jams continued to cause problems during March. Warm weather on the 19th-21st with light rain caused an ice jam at Plymouth, NH, where the Pemigawassett River crested 2.2 feet over flood stage. An ice jam on the upper Connecticut River at Colebrook, NH, caused flooding of roads and several basements. Snowmelt runoff combined with up to an inch of rain on the 27th caused strong rises on most streams with the Connecticut River cresting slightly over flood stage at White River Junction, VT. Further downstream the Connecticut crested 1.1 feet over flood stage at Montague City, MA, and flooding occurred at Hartford and Bodkin Rock, CT, with crests in April. At the end of March ice jams remained in place on a number of streams in Maine and Vermont.	0	N.A.
Susquehanna River Basin	With streams high but in recession from the heavy runoff of the last 10 days of February, rains of up to 2 inches the first five days of March caused strong rises on streams in the basin, with the Tioughnioga and lower Chemung Rivers cresting over flood stage. Downstream in Pennsylvania streams crested up to two-thirds bankfull.	0	N.A.
Atlantic Slope Drainage in North and South Carolina	In North Carolina rainfall of 0.5 to 1 inch was reported on the 6th, 17th, and 19th. The Lumber	0	5

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE-Cont'd		
	River was slightly over flood stage from the 16th-26th with negligible damage. In South Carolina monthly rainfall totals ranged up to 9.5 inches in the mountainous headwater areas. Over the lower Broad River Basin rainfall of 2 to 3 inches on the 16th-17th caused a crest 3.9 feet over flood stage at Blair, SC, on the 17th. Rainfall of 1.5 to 2 inches on the 13th and 2 to 3 inches on the 16th over the lower Saluda Basin caused a crest of 5.8 feet over flood stage at Chappells, SC. On the Congaree River below Columbia, SC, lowland flooding occurred with little damage. However, savings of $315,000 dollars were realized due to warnings which permitted the removal of cattle and construction and logging equipment. The Reedy, Edisto, and Pee Dee Rivers crested just below flood stage during March. Urban flooding was reported in Greenville, SC, on the 16th and 31st.		
Savannah River Basin	Monthly rainfall totals ranged from 7.5 to 9.5 inches over the upper half of the basin. The heaviest amounts occurred on the 15th and 16th which caused extensive flooding on the Broad River and Stevens Creek with crests 3.4 and 13.1 feet over flood stage at Carlton Bridge, GA, and Modoc, SC, respectively. The lower Savannah River crested about 2.5 to 4.5 feet over flood stage with flooding into April. Damage was primarily agricultural.	0	250
Ogeechee and Altamaha River Basins	Frequent rainfall during March with amounts of 2 to 6 inches on the 15th-16th caused extensive flooding. Along the Ogeechee River crests were generally about a foot over flood stage. However, in the Altamaha Basin the Ocmulgee River crested 6.8 feet over flood stage at Macon, GA, and the Oconee 10.6 feet over flood stage at Milledgeville, GA. The Altamaha crested 4.4 feet over flood stage at Charlotte, GA. Damage was primarily agricultural.	0	17
	EAST GULF OF MEXICO DRAINAGE		
Appalachiocola River Basin	The highest stage in the three years of record, 7.3 feet over flood stage, occurred on Peachtree Creek at the Northside Drive gage in Atlanta on the 16th. Rainfall over the basin averaged nearly 5 inches and resulted from a slow-moving cold front which stalled over that part of Georgia. This 24-hour amount approximated that of a 10-year storm frequency. Losses were primarily to homes, apartments, and commercial buildings with 275 structures reported damaged. Rainfall of about 3.5 inches on the 29th-31st caused a crest 2 feet over flood stage on the 31st on Peachtree Creek. On the lower Appalachicola minor flooding began at Blountstown on the 17th and continued into April with a crest 4 feet over flood stage on the 28th.	0	1,219

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	EAST GULF OF MEXICO DRAINAGE-Cont'd		
Alabama-Tombigbee River Basin	Serious flooding occurred in this area during March with 218,000 acres inundated, of which 67,000 were cropland. Monthly rainfall totals were more than 200% of normal over most of the basin. Four periods of rainfall were significant in their contribution to flooding. The first period was the 12th-13th when rains of up to 2 inches set the stage for flooding. On the 15th-16th heavy rains fell throughout central Alabama on a line from Aliceville to Anniston. Amounts of over 9 inches fell in less than 48 hours in the suburbs south of Birmingham. A third significant period of rain occurred on the 26th-27th causing a second crest on many rivers still above flood stage. The fourth period of rain fell on the 31st and left the major rivers in flood as the month ended. The heavy rain early on the 15th combined with runoff from rainfall two days earlier brought all points along major Alabama rivers above flood stage by the evening of the 16th. The moderate to heavy rains on the 26th-27th halted the fall on all rivers. The Tombigbee and Alabama were still above flood stage on their lower sections when the second rise began. More rain on the 31st held stages up so that most major rivers were in flood as the month ended. In the Alabama River Basin the most serious flooding was in the Cahaba River Basin from the heavy (9 inch) rain centered south of Birmingham, which caused flooding all along the Cahaba River from Birmingham south. Tributaries to the Cahaba in north Shelby County rose above their banks and caused extensive damage to residences in low-lying areas. Damage to mobile homes and condominiums in Pelham was estimated at $390,000. The river at Centerville reached flood stage (23 feet) on the 15th as a sharp crest moved downstream from the Birmingham area. Suttle (flood stage 32 feet) experienced a rise in the river stage from 26.1 feet on the morning of the 17th to near crest at 40.2 feet on the morning of the 18th. Flooding commenced at Marion Junction on the 18th. Some 5600 acres of lowland area were flooded along the Cahaba with the river being reported as three miles wide in Perry County, a reach of some 35 miles in length. Pastures were damaged as well as some early crops of corn (30 acres) and rye (100 acres). Some 275 cattle were lost and minor damage to equipment occurred. Estimated total damage amounted to $280,800, which was categorized as follows: Pasture $168,000 Crops 5,400 Cattle 55,000 Cropland (erosion) 38,000 Machinery and equipment 14,400	1	4,821

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)

EAST GULF OF MEXICO DRAINAGE-Cont'd

The river crested 10.7 feet over flood stage at Centerville on the 16th and by the 21st was within its banks along all but the extreme lower sections. The Centerville gage rose above flood stage for about 24 hours on the 28th and dripped back to seven feet below on the 29th only to rise again on the 30th and finish the month some seven feet above the flood stage of 23 feet on the 31st.

Flooding on the Coosa River was localized to the Logan Martin Lake and Childersburg areas. The lake level rose above the full pool level of 465 feet twice during the month and caused considerable flooding on waterfront areas of the lake. Flooding began at Childersburg on the 16th when some 8.36 inches of rain fell at the Logan Martin Dam in 24 hours. Logan Martin Dam is a few miles upstream from Childersburg.

Lake stage at Logan Martin rose to full pool on the 16th and continued until it stood at 471.5 on the 19th. This lake elevation caused flooding of several lakeside improvements such as boat docks and swimming platforms. As March ended, the lake stage was rising again and reached full pool on the 31st. In the headwaters of the Coosa River in Georgia rains of 3.5 inches on the 29th-30th caused flooding along the Etowah and Oastanaula Rivers with losses of $375,000. The Etowah crested 3.5 feet over flood stage on the 31st at Canton, GA.

Only minor flooding occurred on the Tallapoosa River upstream from Martin Dam. Some $20,000 damage was reported in Calhoun County and one death occurred when a car ran off the road in heavy rain, and the driver was drowned in Choccolocco Creek. The large flood gages at Martin Dam were opened on the 18th resulting in some flooding downstream. The Tallapoosa was again on the rise as the month ended but did not reach flood stage until the first of April.

Flooding began on the Alabama River on the 16th as the gages at Montgomery and Millers Ferry reached flood stage. Selma, Jones Bluff, and Claiborne reached flood stage late on the 17th. The river remained above flood stage at Millers Ferry and Claiborne for the rest of March whereas upstream from Millers Ferry most flooding was over by the 21st except at Montgomery where the stage remained above flood until the 24th. A second crest of 35 feet at Montgomery, right at flood stage, was reached on the 28th and as the month ended the river was again on the rise with flood stage at Montgomery on the 31st. Nearly 7 feet of flooding was reported at Montgomery and more than 10 feet at Millers Ferry.

Several periods of relatively minor flooding occurred in the headwaters of the Tombigbee. Crests of up to a foot over flood stage occurred on the

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	EAST GULF OF MEXICO DRAINAGE-Cont'd		
	East Fork at Fulton, MS. Tibbee Creek crested 3 feet over flood stage at Tibbee, MS, on April 1, and 2 to 3 feet of flooding occurred on the Noxubee River twice during the month and on the upper Tombigbee at Amory, MS, three times. The Black Warrior River flooded downstream from Bankhead Lock on the 15th. The flood crest moved downstream rapidly with stages returning to below flood stage at Holt on the 17th and Tuscaloosa on the 18th. Lowland flooding continued downstream from Tuscaloosa until the 25th when the river returned to its banks at Warrior Lock. Flooding again occurred on the lower sections as the stage at Warrior Lock reached 30 feet on the afternoon of the 27th. By the 30th the river was above flood stage along its entire length from above Bankhead Lock downstream. Lowland flooding continued as the month ended. Damage estimates ran from $100,000 to $200,000 in the Warrior and Sipsey River Basins, mostly due to erosion of plowed fields. Crests along the Black Warrior River ranged up to the 8.5 feet over flood stage reported at Tuscaloosa Lock and Dam. From 6.5 to 11.5 feet of flooding occurred on the lower Tombigbee from Gainsville, AL, downstream and continued into April in this reach. Urban flooding was reported in Mobile, AL, on the 26th with nearly 1.5 inches of rain in one hour.		
Pascagoula and Pearl River Basins	Frequent and often heavy rainfall occurred during March bringing monthly totals to well above normal. Totals of 10 to 19 inches were common over the area. Amounts of 2 to 4 inches fell on the 8th-9th, 15th-16th and 30th-31st. Two periods of flooding occurred on Tallahala Creek and the upper Chickasawhay Rivers in the Pascagoula Basin. Tallahala Creek crested 3.2 feet over flood stage at Laurel, MS on the 19th and was rising as the month ended. The Chickasawhay River crested 2 feet over flood stage at Enterprise on the 19th and was also rising at the end of the month. On the Pearl River flooding began at Jackson, MS, on the 8th cresting 16.6 feet over flood stage on the 21st. Eight families were evacuated from a low area of Jackson near Town Creek. Flooding continued on the Pearl River the rest of the month and for much of the time was above flood stage from Edinburg to the mouth. Crests below Jackson occurred early in April. Damage along the Pearl River was estimated at $2,038,000 by the Corps of Engineers.	0	2,413
	UPPER MISSISSIPPI BASIN		
Tributaries in Minnesota, Wisconsin, and northeast Iowa	Three major storms occurred on the 1st-5th, the 11th-13th and 26th-31st. The first storm moved northeast bringing several bands of heavy snow, 3 to 6 inches between Fargo, ND, and Duluth, MN,	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	UPPER MISSISSIPPI BASIN-Cont'd		
	4 to 7 inches from Correll to Delano in southern Minnesota and across northern Wisconsin from Danbury to Breed. The second storm on the 11th-13th was significant, especially to southeastern Minnesota. Precipitation amounts of 0.50 or more were common over nearly all of Minnesota and Wisconsin and northeast Iowa. One inch to occasionally 1.5 inches fell across the southernmost portion of Minnesota and northeast Iowa. This storm depleted most of the 2 to 6 inches of remaining snow in the southern portions of Minnesota and Wisconsin, while adding this much and more to some northern sections. Minor flooding followed the storm which began on the 11th. The Zumbro River in southeast Minnesota crested .5 to 1 foot over flood stage on the 13th between Rochester and the mouth at Theilman. The Root River at Houston in southeast Minnesota crested near an estimated 16.5 feet but equipment damage rendered a precise stage impossible. Peak discharge was measured at 18,800 c.f.s. by the USGS. Downstream at Hokah debris blockage helped to push the stage to 51 feet, four feet over flood stage. Although a small dike broke, flooding was confined mostly to agricultural land. In northeast Iowa the upper Iowa River crested nearly 4 feet over flood stage at Dorchester and Turkey Creek 4.2 feet over flood stage at Garber. The final storm system on the 26th-31st speeded the spring snowmelt which had begun at midmonth. As this storm moved from central Iowa through north central Wisconsin rainfall ranged from 1.25 inches near Minneapolis-St. Paul to 1.75 inches in the southeast corner of Minnesota. Wisconsin showed similar amounts in the western two-thirds of the state. Over two inches was received in the Cedar Falls-Alma area in west central Wisconsin. This storm caused flooding on portions of the Chippewa and Wisconsin Rivers which extended into April. On the Mississippi the navigation season opened on the 5th, the earliest on record.		
Rock River Basin	Warm weather the last week of February caused melting of the snow cover and precipitation of up to 4 inches over the headwaters during the first week of March caused considerable flooding. The Pecatonica River crested 3.3 feet over flood stage at Martintown, WI, the Kishwaukee River 5.6 feet over flood stage at Perryville, IL, and the Rock River 2.8 feet over flood stage at Joslin. Additional precipitation of up to an inch around the middle of the month caused minor flooding in the upper Pecatonica Basin.	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars
	UPPER MISSISSIPPI BASIN-Cont'd		
Tributaries in central and southern Iowa, and northern Missouri	Rains from around 1.5 inches to slightly over 3 inches fell over much of southeast Iowa on the 4th into early morning of the 5th. Many streams rose to near bankfull. Cedar Creek, a tributary of the Des Moines River, crested at Bussey, Iowa, about 2.5 feet above flood stage around noon of the 5th, for the only report of flooding in Iowa. The Salt River in northeastern Missouri crested 4.6 feet over flood stage on the 7th. One to two inches of rain fell on the upper reaches of the Iowa, Cedar, and Skunk rivers on the 11th and early 12th. These rivers and some of their tributaries rose to near bankfull during the next several days. The Iowa River rose to around 3 feet above flood stage at Marshalltown on the 13th. Blackhawk Creek, at Hudson, crested about 2 feet above flood stage on the 13th.	0	N.A.
Illinois River Basin	Serious flooding occurred in the headwaters of the basin early in March as widespread rains of 1 to 2 inches on the 1st and about 3 inches on the 5th fell on ground saturated by snowmelt late in February. The Kankakee River crested 1.6 feet over flood stage at Momence, IL, while upstream a levee failure flooded 40,000 acres of agricultural land and affected 500 residences and summer cottages at Shelby and Sumava Resorts, IN, with 250 people evacuated and losses of $550,000. Along the Des Plaines River, which crested 1.8 feet over flood stage at Gurnee, IL; 40 residences, 22 businesses, and 2 schools were affected at Gurnee; 3 residences at Russell, 1 at Libertyville, and 2 at Lincolnshire. Amount of loss was not available. Minor flooding was reported on the Vermillion, Fox and upper Singamon Rivers. On the main stem of the Illinois, flooding began on the 2d in the Morris to Peoria reach with crests of about 6 to 8 feet over flood stage. On the lower Illinois, flooding continued from February at and below Havana with crests 6 to 8 feet over flood stage from the 11th to the 14th and extended into April.	0	N.A.
	MISSOURI BASIN		
Lower Missouri River Tributaries	Rains of 2 inches or more on the 4th-5th from north central Missouri into Iowa caused some flooding on portions of the Grand, Chariton, Lamine, and Blackwater Rivers. Crests of about 4 to 5 feet over flood stage occurred on the lower Grand River at Sumner, MO, the Lamine River at Clifton City, MO, and the Blackwater River at Valley City, MO. Minor flooding occurred on the upper Chariton River in Iowa.	0	N.A.
	OHIO RIVER BASIN		
Allegheny River Basin	Flooding began on the Chadakoin River (the outlet of Lake Chautauqua) on February 19 as a result of	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	OHIO RIVER BASIN-Cont'd		
	the heavy rains and heavy snowmelt runoff (discussed in the February report) which caused flooding along Conewango Creek, of which the Chadakoin is a tributary. The 2 to 4 inch rains over western New York on March 1-4 caused a crest 1.5 feet over flood stage on the Chadakoin at Falconer, which was the highest in the 42 years of record. Lake Chautauqua reached its highest level since at least 1936 and extensive flooding occurred in the city of Jamestown, NY. More than 1,000 homes and businesses were affected with losses of more than a million dollars.		
Ohio Tributaries in Kentucky	Rains of 2 inches or more over the headwaters of the Licking River caused flooding along the upper reaches of the stream on the 21st-23d with a crest 1.3 feet over flood stage. On the 29th-30th rains of 3 to 4 inches or more over the headwaters of the Green and Cumberland Rivers caused significant flooding along the upper Green River from Munfordville to Rochester and the upper Cumberland River down to Williamsburg. Maximum flooding on the Green River occurred at Woodbury with a crest 5.3 feet over flood stage. On the Cumberland River maximum flooding occurred at Barbourville with a crest 5.4 feet over flood stage. Flooding continued into April on both streams. Minor flooding occurred on the Barren and Rolling Fork Rivers.	0	N.A.
Wabash River Basin	The major flooding of February continued into March at most points on the Wabash at and below Lafayette, IN. A series of storms during the first week in March totaling more than 4 inches in some areas prolonged the flooding on the Wabash causing a second crest at many points which was substantially lower than those of late February. Flooding recurred along several major tributaries including the Embarras, White and Little Wabash with crests ranging up to 5 feet or more over flood stage. However, there was little damage beyond that which occurred in February.	0	N.A.
Tennessee River Basin	Rainfall of 2.5 inches or more over the headwaters of the Tennessee on the 30th-31st caused some minor flooding on the French Broad River at Rosman, NC, and South Chickamauga Creek near Chattanooga, TN, with crest about 0.5 foot over flood stage.	0	N.A.
Ohio River Main Stem	Flooding on the lower Ohio River which occurred during the latter half of February continued into March at and below Newburgh Dam, IN, ending by the 5th.	0	N.A.
	WHITE BASIN		
Cache and Black Rivers	Flooding continued on the Cache River from February with rains of 2 to 3 inches on the 8th-9th causing a second crest at Patterson, AR, on	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	WHITE BASIN-Cont-d		
	the 11th, 1.7 feet over flood stage. Flooding continued into April aided by additional rain of up to 3 inches on the 30th-31st which also caused minor flooding on the lower Black River.		
	RED BASIN		
Ouachita River Basin	Rains of 3-4 inches on the 8th-9th caused flooding along the middle Ouachita River with a crest nearly 6 feet over flood stage on the 14th at Camden, AR. Minor flooding occurred on the Little Missouri tributary. Flooding was primarily of agricultural land and delayed planting of crops.	0	N.A.
	LOWER MISSISSIPPI BASIN		
Big Black River	Frequent heavy rainfall occurred throughout the month with the monthly total averaging nearly 15 inches (255 percent of normal) over the headwaters of the Big Black River. Two crests of 3 to 4 feet over flood stage occurred at West, MS, while downstream at Bovina, MS, a crest 10.4 feet over flood stage was reported. Flooding continued into April at Both locations.	0	N.A.
	WEST GULF OF MEXICO DRAINAGE		
Western Louisiana Streams	Locally heavy rainfall during March caused some flooding at several locations. Amounts of 2 to 3 inches on the 14th-15th caused a crest about 2 feet over flood stage on the upper Calcasieu at Hineston. On the 24th-25th torrential rains with reports of 7 to 10 inches at many locations caused minor flooding on the Mermentau and West Fork Calcasieu and a crest 1.5 feet over flood stage at Old Town Bay on the Calcasieu. Urban flooding was reported in De Quincy with about 200 people evacuated. On the 28th-29th amounts of up to more than 3 inches occurred with flooding again on the upper Calcasieu which crested 2.7 feet over flood stage on April 1.	0	N.A.
Eastern Texas Streams	Frequent rainfall occurred during March over this area many portions of which had been abnormally dry since the previous fall. Amounts of up to 3 inches the first week caused minor flooding on the Angelina and upper Sabine Rivers. Chambers Creek in the upper Trinity Basin crested 4.1 feet over flood stage on the 21st. Pine Island Bayou was over its banks from the 14th-18th but failed to exceed flood stage. Locally heavy rainfall late in the month caused lowland flooding on the lower Sabine and the Neches River in the Alto to Diboll reach.	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

MARCH 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	PACIFIC SLOPE DRAINAGE		
North Coastal and Willamette Basin Streams in Oregon	Amounts of 3 to 4 inches over the northern Coastal Range the 24th-25th caused minor flooding on the Wilson River in the Coastal Drainage and the Tualatin River in the Willamette Basin.	0	N.A.

FLOOD STAGE DATA

(All

River and station	Flood stage	Above flood stage		Crest	
		From-	To-	Stage	Date
	Ft.				
HUDSON BAY DRAINAGE					
Souris River.					
Sherwood, ND	18	29	1	25.15	Apr 10
Foxholm 3 E, ND	10	23	1	16.86	Apr 17
Minot 4 NW, ND	14	26	1	21.27	Apr 17
Velva, ND	MSL1505	23	1	1509.9	Apr 20
Bantry, 8 E, ND	11	24	1/	14.51	Apr 22
Westhope 7 NE, ND	10	31	1	19.12	Apr 11
Buffalo River.					
Dilworth, MN	12	26	1/	13.71	30
Wild Rice River:					
Hendrum, MN	17	26	1	20.22	30
Red Lake River.					
High Landing, MN	9	19	24	# 9.63	24
		29	30	10.35	29
Turtle.					
Manvel, ND	10	27	1/	16.51	31
Snake River:					
Warren, MN	MSL845	29	31	845.2	30
Alvarado, MN	6	30	1	7.2	30
South Fork Two Rivers:					
Lake Dam, MN	18.5	26	1/	19.50	30
Red River of the North:					
Fargo, ND	17	28	1/	18.70	30
Grand Forks, ND	28	31	1/	34.58	Apr 3
GREAT LAKES-ST. LAWRENCE DRAINAGE					
Wolf:					
New London, WI	9	25	1/	10.5	Apr 2
Elkhart:					
Goshen, MI	7	2	7	7.57	6
Portage Creek:					
Vicksburg, MI	5	3	24		1
Fawn:					
White Pigeon, MI	4	1	23	4.75	6-7
St. Joseph River:					
Burlington, MI	5	4	11	5.28	6
Three Rivers, MI	8	5	12	9.05	8
Mottville, MI	8	7	9	8.2	8
Flat:					
Snyrna, MI	6	0	1	6	0
Thornapple:					
Hastings, MI	7	6	7	7.2	7
Caledonia, MI	8	5	12	9.22	7
Rogue River:					
Rockford, MI	7	3	9	9.29	6
		13	16	7.70	16
Red Cedar River:					
Williamston, MI	7	6	7	8.06	5-6
East Lansing, MI	7	5	5	7.12	5
Grand River:					
Lansing, MI	11	5	6	11.5	5
Ionia, MI	21	7	9	23.04	6
Lowell, MI	15	6	10	17.25	7
Ada, MI	20	6	9	20.75	7
Comstock Park, MI	12	5	12	15.9	8
Grand Rapids	18	7	10	19.3	8
Muskegon:					
Evart, MI	12	26	Apr 1	14.04	29

River and station	Flood stage	Above flood stage		Crest	
		From-	To-	Stage	Date
Muskegon-Continued:					
Newaygo, MI					
White:					
Whitehall, MI				7.13	
				6.45	
Shiawassee River:					
Owosso, MI					
Flint River:					
Flint, MI	11				
Cass River:					
				14.42	
Vassar, MI				17.72	
Chippewa River:					
Mt. Pleasant, MI				8.6	
				10.39	
Pine River:					
Alma, MI					
Tittabawassee River:					
Midland, MI				25.72	
				27.60	
Saginaw:					
Saginaw, MI					
Clinton River:					
Fraser, MI				15.51	
Mt. Clemens, MI				13.44	
Middle River Rouge:					
Garden City, MI					
Lower River Rouge:					
Inkster, MI					
Huron River:					
Dexter, MI					
Ann Arbor, MI				16.4	
Saline River:					
Saline, MI					
Raisin River:					
Tecumseh, MI					
Adrain, MI				13.1	
Monroe City, MI	8.5			9.49	
St. Marys:					
Decater, IN					
St. Josepha:					
Montpelier, OH					
Tiffin:					
Stryker, OH					
Maumee:					
Defiance, OH					
Ellicott Creek:					
Williamsville, NY					
Eatons					
Garbutt, NY					
Black:					
Churchville, NY					
Genesee:					
Portageville, NY				18.9	
Avon, NY					
Rochester, NY				14.0	

FLOOD STAGE DATA

(All dates in March unless otherwise specified)

MARCH 1976

River and station	Flood stage	Above flood stages —dates		Crest	
		From—	To—	Stage	Date
	Ft			Ft	
ATLANTIC SLOPE DRAINAGE					
Pemigewasset:					
Plymouth, NH	11	21	23	13.21	22
Connecticut:					
White River Junction, VT	18	28	29	18.8	28
Montague City, MA	28	29	29	29.1	29
Hartford, CT	16	29	1/	22.47	Apr 4
Bodkin Rock, CT	8	29	1/	13.5	Apr 4
Tioughnioga:					
Whitney Point, NY	12	1	4	12.9	3
Chemung:					
Chemung, NY	1.	3	4	13.8	3
Lumber:					
Lumberton, NC	9	16	26	9.7	19
Broad:					
Blair, SC	14	16	18	17.9	17
Saluda:					
Chappells, SC	14	16	18	19.8	17
Broad:					
Carlton Bridge, GA	15	17	17	18.4	17
Stevens Creek:					
Modoc, SC	18	16	17	31.1	16
Savannah:					
Millhaven-Wade 2 SE, GA	15	21	1/	#17.4	27
Clyo, GA	11	20	1/	15.4	29
Ogeechee:					
Midville, GA	6	22	22	6.0	22
Scarboro, GA	8	22	26	9.1	24
Eden, GA	9	28	1/	#10.0	29-30
Ocmulgee:					
Macon, GA	18	16	20	24.8	19
Hawkinsville, GA	25	22	23	#26.4	22
Lumber City, GA	15	27	29	16.05	28
Oconee:					
Milledgeville, GA	20	16	20	30.6	16
Dublin, GA	21	20	24	25.3	21
Altamaha:					
Charlotte, GA	15	24	1/	#19.42	28
EAST GULF OF MEXICO DRAINAGE					
Peachtree Creek:					
Atlanta, GA	13	15	16	20.28	16
		31	31	15.05	31
Apalachicola:					
Blountstown, FL	15	17	1/	19.02	28
Etowah:					
Canton, GA	17	31	1/	20.5	31
Coosa:					
Logan Martin Reservoir, AL	465	16	25	471.5	19
Tallapoosa:					
Tallapoosa Water Plant, AL	25	17	18	25.5	18
Cahaba:					
Centreville, AL	23	15	19	33.7	16
		28	29	25.5	28
		30	Apr 2	30.0	31
Suttle, AL	32	17	21	40.2	18
		29	31	32.6	30
Marion Junction, AL	36	18	21	39.4	18
Alabama:					
Montgomery, AL	35	16	24	41.7	18

River and station	Flood stage	Above flood stages —dates		Crest	
		From—	To—	Stage	Date
	Ft			Ft.	
EAST GULF OF MEXICO DRAINAGE-Cont'd					
Alabama-Continued:					
Jones Bluff Lock and Dam, AL	122	17	20	124.5	18
Selma, AL	45	17	21	47.5	19
Millers Ferry Lock and Dam, AL	66	16	1/	76.1	21
Claiborne, AL	40	17	1/	47.0	24
East Fork Tombigbee:					
Fulton, MS	16	11	12	16.0	11
		22	24	17.0	22
		28	29	16.5	28
		30	1/	16.84	Apr 1
Tibbee Creek:					
Tibbee, MS	23	11	12	23.87	11
		30	1/	25.99	Apr 1
Noxubee:					
Macon, MS	26	16	19	28.73	16
		30	1/	28.43	Apr 2
Black Warrior:					
Bankhead Lock and Dam, AL	189	15	17	190.0	16
		30	Apr 1	189.5	31
Holt Lock and Dam, AL	140	15	17	145.0	16
		30	Apr 1	142.6	31
Tuscaloosa Lock and Dam, AL	47	15	18	55.5	16
		29	Apr 2	53.0	Apr 1
Warrior Lock and Dam, AL	30	15	24	38.4	20
		27	1/	40.0	Apr 3
Tombigbee:					
Amory, MS	20	5	7	20.3	6
		21	23	22.4	22
		27	29	22.0	28
		30	1/	22.6	Apr 1
Gainesville, AL	36	15	22	42.5	17
		27	1/	42.5	Apr 2
Demopolis Lock and Dam, AL	48	15	1/	59.5	21
Coffeeville Lock and Dam, AL	43	13	1/	58.0	Apr 2
Tallahala Creek:					
Laurel, MS	13	18	22	16.2	19
		30	1/	18.7	Apr 2
Chickasawhay:					
Enterprise, MS	20	18	20	22.1	19
		27	1/	31.14	Apr 1
Shubuta, MS	30	31	1/	38.0	Apr 3
Yockanookany:					
Ofahoma, MS	14	13	22	16.0	16
		28	1/	17.3	31, Apr 1
Pearl:					
Edinburg, MS	20	12	26	25.8	18
		27	1/	25.3	31
Carthage, MS	17	11	1/	24.0	31
Jackson, MS	18	8	1/	34.6	21
Monticello, MS	19	14	1/	28.15	Apr 4
Columbia, MS	17	17	1/	24.0	Apr 6
Bogalusa, LA	15	10	1/	20.4	Apr 3-9
Pearl River, LA	12	15	1/	E16.8	Apr 6
UPPER MISSISSIPPI BASIN					
Chippewa:					
Durand, WI	11	31	1/	13.3	Apr 2
South Fork Zumbro River:					
Rochester, MN	12	12	12	12.65	12
Zumbro River:					
Theilman, MN	38	13	13	39.0	13
Black River:					
Galesville, WI	12	31	1/	12.94	Apr 2
Root River:					
Houston, MN	15	13	14	E16.5	13

FLOOD STAGE DATA

(All dates in March unless otherwise specified)

River and station	Flood stage	Above flood stages –dates		Crest	
		From	To–	Stage	Date
	Ft			Ft	
Upper Mississippi River-Cont'd					
Red River-Continued:					
Breckenridge, MN	47	12	14	51.0	13
Upper Iowa River:					
Dorchester, IA	14	12	13	17.9	12
Illinois:					
Solidarity Drive, WI	MSL723	13	14	723.2	13
Des Plaines, WI	MSL698	14	15	698.2	14
Steuben, WI	8	12	17	E 9.5	16
Wisconsin River:					
Merrill, WI	11	30	Apr 1	11.83	31
Portage, WI	17	31	1	18.1	Apr 2
Turkey Creek:					
Garber, IA	17	11	14	21.24	12
Maquoketa River:					
Maquoketa, IA	24	5	5	24.5	5
East Branch Pecatonica River:					
Blanchardville, WI	17	5	5	17.9	5
		13	13	17.2	13
Pecatonica River:					
Darlington, WI	11	5	5	11.8	5
		13	13	12.0	13
Martintown, WI	11	Feb 27	2	12.1	1
		5	11	14.3	8
		16	18	11.4	18
Shirland, IL	12	6	12	12.4	8
Kishwaukee River:					
Perryville, IL	10	5	9	15.6	6
Rock River:					
Rockton, IL	10	6	6	10.37	6
Joslin, IL	12	6	12	14.8	8
Moline, IL	12	8	11	12.7	9
Blackhawk Creek:					
Hudson, IA	12	13	15	14.2	13
Iowa River:					
Marshalltown, IA	13	12	14	16.2	13
Cedar Creek:					
Bussey, IA	16.5	5	5	18.9	5
Salt River:					
New London, MO	19	5	8	23.6	7
Salt Creek:					
Rolling Meadows, IL	8.5	5	6	10.4	5
Du Page:					
West Chicago	7	3	6	11.4	6
Kankakee River:					
Momence, IL	5	4	9	6.64	5
Des Plaines River:					
Riverside, IL	6	4	9	7.2	5
Curnee, IL	8	6	11	# 9.8	7,8
Fox River:					
Wilmot, WI	6.5	5	18	# 7.9	6,9
Algonquin, IL	3	7	17	3.2	8-17
Dayton, IL	MSL482	5	5	#482.27	5
Vermilion River:					
Lowell, IL	10	5	7	#10.65	6
Sangamon River:					
Monticello, IL	13	7	7	13.4	7
Illinois River:					
Morris, IL	13	2	16	#19.70	6
La Salle, IL	20	2	21	#27.8	6
Peoria, IL	18	3	23	#23.6	9
Havana, IL	14	Feb 21	1	A #20.2	11
Beardstown, IL	14	Feb 22	1	A #21.8	13
Meredosia, IL	12	Feb 25	4	#38.6	14
Mississippi:					
Clarksville, MO Dam 24 TW	25	7	7	#25.1	7
MISSOURI BASIN					
Grand River:					
Chillicothe, MO	24	5	6	27.7	6
Sumner, MO	26	5	7	31.15	6
Chariton River:					
Chariton, IA	15	5	6	16.50	6
Centerville, IA	18	5	5	18.10	5
Lamine River:					
Clifton City, MO	19	4	5	23.15	5
Blackwater River:					
Valley City, MO	22	4	5	26.9	4
Blue Lick, MO	25	6	6	25.46	7
OHIO BASIN					
Chadakoin:					
Falconer, NY	3.2	Feb 19	17	4.67	5
Licking:					
Salyersville, KY	18	21	23	#19.26	22
		30	30	#18.0	30
Rolling Fork:					
Boston, KY	35	31	31	#35.0	31
Barren:					
Bowling Green, KY	28	30	30	#28.4	30
Green:					
Munfordville, KY	28	30	31	#29.57	31
Brownsville, KY	18	30	Apr 1	18.97	31
Woodbury, KY (upper)	17	30	Apr 3	#22.27	Apr 1
Woodbury, KY (lower)	33	30	Apr 3	#37.60	Apr 1
Rochester, KY (upper)	18	0	Apr 4	#20.0	Apr 2
Rochester, KY (lower)	33	0	Apr 4	#35.0	Apr 2
Embarrass,					
Ste. Marie, IL	18	5	7	20.1	6
Lawrenceville, IL	11	6	11	16.4	10
White:					
Nora, IN	11	6	6	11.3	6
Ravenswood, IN	6	6	6	E 6.1	6
Centerton, IN	MSL602	6	7	602.4	7
Spencer, IN	14	5	8	16.7	7
Elliston, IN	18	6	10	E21.6	7
Edwardsport, IN	15	7	11	18.2	10
Hazelton, IN	16	Feb 20	1	21.2	Feb 26
		11	11	16.2	11
Little Wabash:					
Wilcox, IL	16	5	11	#20.83	9
		22	23	#17.30	23
Wabash:					
Wabash, IN	12	2	2	12.2	2
		4	4	12.9	4
		11	11	12.0	11
Lafayette, IN	11	Feb 11	1	18.9	Feb 18
		5	12	16.0	6
Lexington, IN	16	Feb 11	11	16.1	7

FLOOD STAGE DATA

(All dates in March unless otherwise specified)

River and station	Flood stage	Above flood stages -dates From	To	Crest Stage	Date
	Ft			Ft	
OHIO BASIN-Cont'd					
Wabash-Continued:					
Montezuma, IN	14	Feb 11	15	A19.4	8
Clinton, IN	18	6	9	E19.2	8
Terre Haute, IN	14	Feb 11	14	A17.5	9
Hutsonville, IL	20	Feb 19	1	#23.4	Feb 22
		11	11	20.0	11
Riverton, IN	13	Feb 14	19	A18.1	11
Vincennes, IN	16	Feb 21	4	20.7	Feb 25
		6	14	17.5	11
Mt. Carmel, IL	17	Feb 21	2	22.3	Feb 27
		4	13	18.1	12
New Harmony, IN	15	Feb 23	3	#18.6	Feb 28
Cumberland:					
Baxter Harlan R.W.S., KY	16	29	30	16.6	30
Pineville, KY (Pine St.)	MSL1002	30	30	#1005.0	30
Pineville, KY (Four Mile)	996	30	30	997.1	30
Barbourville, KY	27	30	31	#32.4	31
Williamsburg, KY	21	30	Apr 1	#23.4	31
French Broad:					
Hosman, NC	8	31	Apr 1	8.43	31
South Chickamauga Creek:					
Chickamauga, TN	12	30	31	10.5	30
Newburg, IN Dam 47(upper)	20	Feb 19	1	#27.3	Feb 24
Newburgh, IN Dam 47(lower)	38	Feb 19	1	#44.7	Feb 24
Mt. Vernon,IN	35	1	2	#41.2	Feb 26
Uniontown, KY Dam 49 (upper)	19	Feb 21	3	#25.3	Feb 27
Uniontown, KY Dam 49(lower)	37	Feb 21	3	#42.9	Feb 27
Shawneetown, IL	33	Feb 19	5	#43.2	Feb 27
Fords Ferry, KY Dam 50(upper)	34	Feb 19	5	#46.0	Feb 27
Golconda, IL	40	Feb 20	2	#42.7	Feb 27
Paducah, KY	39	Feb 27	Feb 29	#39.22	Feb 28
Brookport, IL Dam 52(upper)	37	Feb 22	3	#40.3	Feb 26
Cairo, IL	40	Feb 23	3	#42.0	Feb 26
WHITE BASIN					
Cache:					
Patterson, AR	7	Feb 19	1/	A 8.7	11
Black:					
Black Rock, AR	14	30	31	14.7	30
RED BASIN					
Little Missouri:					
Boughton, AR	20	9	10	20.61	1
Ouachita:					
Camden, AR	25	10	16	31.9	14
LOWER MISSISSIPPI BASIN					
Big Black:					
West, MS	12	9	15	15.9	10
		16	1/	15.2	24
Bovina, MS	28	12	1/	38.39	Apr 1
WEST GULF OF MEXICO DRAINAGE					
Mermentau:					
Mermentau, LA	5	28	30	# 5.3	29-30
West Fork Calcasieu:					
Sam Houston Park, LA	5	26	27	5.6	27
Calcasieu:					
Hineston, LA	12	15	19	#14.1	16-19
		31	1	14.7	Apr 1
Old Town Bay, LA	4	25	27	E 5.5	26

River and station	Flood stage	Above flood stages -dates From	To	Crest Stage	Date
	Ft			Ft	
WEST GULF OF MEXICO DRAINAGE-Cont'd					
Sabine:					
Mineola, TX	14	9	9	14.2	9
Deweyville, TX	14	26	29	14.25	27
Angelina:					
Lufkin, TX (near)	8	9	1/	10.78	Apr 4
Neches:					
Alto, TX (near)	16	27	27	#16.2	27
Diboll, TX (near)	10	26	1/	11.75	Apr 3
Chambers Creek:					
Corsicana, TX (near)	20	19	23	24.1	21
PACIFIC SLOPE DRAINAGE					
Wilson:					
Tillamook, OR	11	24	24	11.08	24
Tualatin:					
Dilley, OR	17	25	25	E17.5	25

A See Previous Monthly Report (s) for Additional Crest Information.

RAWINSONDE DATA

Average monthly values

ALBANY, NY — 1008 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	30	86	-1.2	-5.1	23	1.4
1000	27	163	-.9	-6.3	24	1.7
950	30	556	-1.4	-6.1	24	4.1
900	30	967	-2.1	-7.7	26	4.9
850	30	1,441	-2.5	-9.3	27	12.0
800	30	1,930	-4.1	-12.8	28	13.7
750	30	2,428	-6.4	-16.5	28	16.5
700	30	2,965	-8.9	-19.6	27	17.9
650	30	3,536	-12.0	-22.0	27	20.1
600	30	4,145	-15.4	-26.0	27	22.9
550	30	4,797	-19.1	-31.8	27	25.4
500	30	5,500	-23.7	-35.3	27	27.5
450	29	6,259	-29.1	-38.3	27	28.7
400	29	7,091	-34.8	40.7	27	28.9
350	29	8,013	-41.0	-44.4	27	32.2
300	29	9,044	-47.4		27	34.3
250	29	10,233	-53.4		28	35.2
200	29	11,654	-57.6		28	35.1
150	29	12,498	-57.0		28	33.2
100	27	13,481	-56.2		27	29.3
75	27	14,046	-56.6		27	23.9
50	27	16,049	-57.9		27	21.4
40	27	17,454	-58.4		28	20.5
30	27	18,293	-59.0		28	17.7
20	24	19,184	-58.9		24	14.7
15	20	20,196	-58.5		29	12.9
10	18	21,844	-56.5		29	7.2
7	15	23,069	-56.9		33	7.7
5	14	24,859	-55.1		33	7.7
3	11	26,347	-54.7		34	6.0
2	10	28,189	-52.6		31	8.4
1	6	30,744	-50.3			

ALBUQUERQUE, NM — 835 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	31	1,619	.9	-10.2	29	1.2
1000						
950						
900						
850						
800						
750	31	2,465	.0	-14.7	28	6.1
700	31	2,965	-3.9	-16.5	28	8.2
650	31	3,515	-7.6	-19.6	27	10.3
600	31	4,232	-12.0	-23.6	27	12.5
550	31	4,893	-16.2	-29.4	26	15.6
500	31	5,604	-21.0	-33.9	26	19.2
450	29	6,373	-26.3	-38.1	26	20.5
400	29	7,215	-32.1	-43.0	26	21.2
350	29	8,147	-38.7	-49.1	26	23.1
300	29	9,187	-45.9		26	26.0
250	29	10,382	-52.7		26	28.9
200	29	11,808	-56.7		26	30.0
150	29	12,655	-56.7		26	28.8
100	27	13,635	-56.1		26	24.7
75	27	14,787	-56.3		26	21.7
50	27	16,175	-61.9		26	19.1
40	27	17,559	-61.0		27	11.5
30	27	18,388	-61.5		26	6.8
20	24	19,345	-61.3		26	4.3
15	20	20,480	-59.4		30	2.3
10	18	21,883	-58.1		05	3.2
7	15	23,709	-55.9		06	5.1
5	14	24,873	-54.8		06	6.9
3	11	26,309	-52.9		07	8.6
2	10	28,165	-50.9		07	8.5
1	8	30,844	-48.2			

AMARILLO, TX — 848 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	31	1,095	2.5	-6.6	27	2.2
1000						
950						
900	31	1,948	7.0	-8.6	27	6.3
850	31	1,946	6.0	-10.4	27	8.2
800	31	2,471	3.1	-13.8	27	9.8
750	31	3,026	-1.0	-16.9	26	11.8
700	31	3,613	-5.0	-19.4	26	13.0
650	31	4,237	-9.4	-22.7	25	14.2
600	31	4,904	-13.9	-26.3	25	17.8
550	31	5,620	-19.1	-32.3	25	20.3
500	31	6,396	-25.0	-37.3	25	22.0
450	31	7,241	-31.5	-43.0	25	25.0
400	31	8,175	-38.5	-47.9	25	27.1
350	31	9,215	-45.8		25	32.1
300	31	10,408	-53.7		25	34.9
250	31	11,825	-58.0		26	33.6
200	30	12,667	-56.9		26	34.2
150	30	13,643	-57.2		26	28.4
100	28	14,790	-59.4		26	25.0
75	27	16,177	-61.9		26	19.9
50	27	17,554	-62.7		26	12.4
40	27	18,878	-62.4		26	11.9
30	26	19,332	-61.4		27	6.6
20	24	20,465	-60.2		28	2.4
15	21	21,860	-58.8		34	1.9
10	19	23,678	-56.7		04	3.3
7	16	24,831	-55.8		03	4.1
5	13	26,257	-54.4		05	4.1
3	10	28,125	-52.1		07	5.5
2	7	30,814	-49.3			

ANCHORAGE, AK — 1001 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	30	45	-4.7	-9.4	03	.3
1000	14	137	-4.3	-12.3	09	.7
950	30	455	-5.4	-10.9	12	1.5
900	30	878	-7.5	-12.1	15	2.5
850	30	1,321	-9.9	-14.1	16	3.8
800	30	1,787	-12.4	-16.3	17	5.2
750	30	2,277	-15.3	-19.5	19	5.7
700	30	2,795	-18.3	-23.3	19	6.4
650	30	3,344	-21.2	-26.6	20	7.3
600	30	3,932	-24.7	-30.6	21	8.2
550	30	4,561	-28.7	-34.7	22	9.8
500	30	5,236	-33.3	-37.9	22	11.8
450	30	5,969	-38.2	-39.5	23	13.6
400	30	6,771	-43.1	-41.2	23	16.2
350	30	7,665	-47.6		23	18.0
300	30	8,671	-51.1		24	20.1
250	30	9,858	-50.2		24	19.8
200	30	11,324	-47.7		25	16.4
150	30	12,208	-46.8		25	16.1
100	30	13,230	-46.9		25	15.5
75	30	14,438	-47.4		26	15.1
50	30	15,913	-47.9		26	14.5
40	30	17,388	-48.4		27	13.3
30	30	18,263	-48.4		27	13.2
20	30	19,279	-47.9		27	12.4
15	30	20,484	-47.2		27	12.2
10	30	21,961	-47.0		28	11.2
7	30	23,867	-46.4		28	11.4
5	29	25,088	-45.6		28	10.7
3	28	26,576	-44.4		29	10.5
2	26	28,219	-41.9		29	10.9
1	18	31,284	-39.3		29	12.5

ATHENS, GA — 989 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	31	246	9.6	6.8	27	.7
1000						
950	31	585	11.9	3.6	24	4.4
900	31	1,037	10.3	1.4	25	6.6
850	31	1,510	8.3	-2.6	25	9.2
800	31	2,010	5.6	-5.3	26	10.6
750	31	2,536	3.4	-9.2	26	12.7
700	31	3,092	.5	-12.1	26	13.1
650	31	3,684	-2.7	-15.2	26	14.1
600	31	4,314	-6.7	-17.8	26	16.8
550	31	4,988	-11.4	-21.4	26	19.1
500	31	5,712	-16.5	-27.4	26	21.0
450	31	6,496	-21.7	-33.2	26	22.4
400	31	7,353	-28.0	-38.3	26	24.3
350	31	8,300	-35.3	-43.9	26	26.5
300	31	9,353	-43.5		27	29.2
250	31	10,553	-53.0		27	34.0
200	31	11,964	-59.9		27	39.9
175	31	12,800	-59.1		27	38.7
150	31	13,765	-60.3		27	35.3
125	30	14,894	-63.2		27	32.0
100	30	16,257	-65.6		27	26.6
75	30	17,868	-66.0		27	18.6
70	30	18,423	-65.4		27	14.0
50	30	19,364	-63.9		28	9.5
40	29	20,486	-61.6		29	5.5
30	29	21,875	-59.6		30	5.0
20	29	23,688	-56.6		34	3.3
15	29	24,848	-55.4		33	3.7
10	28	26,276	-53.6		33	3.9
7	27	27,940	-51.6		28	4.1
5	27	28,140	-50.0		28	6.1
3	17	30,796	-44.7			

BARROW, AK — 1016 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	28	8	-27.1	-30.5	05	1.5
1000	27	131	-24.7	-25.9	05	2.7
950	28	503	-20.4	-23.7	05	3.3
900	28	905	-18.6	-23.2	05	2.8
850	28	1,331	-19.1	-23.9	06	2.2
800	28	1,781	-20.3	-26.4	06	2.1
750	28	2,257	-22.6	-28.6	04	2.3
700	28	2,761	-25.0	-32.0	03	1.7
650	28	3,296	-28.0	-35.1	03	1.6
600	28	3,867	-31.5	-38.7	04	1.6
550	28	4,478	-35.3	-41.5	02	.9
500	28	5,136	-39.5	-45.0	02	.9
450	31	5,851	-43.7		31	.5
400	31	6,635	-48.0		25	1.2
350	31	7,510	-52.3		25	2.6
300	31	8,496	-55.7		25	4.2
250	31	9,656	-55.4		25	6.7
200	31	11,087	-53.2		26	10.9
175	31	11,949	-52.6		26	13.4
150	31	12,948	-51.7		26	17.0
125	30	14,134	-50.6		26	20.2
100	30	15,591	-49.7		26	24.2
75	29	17,285	-49.1		27	25.9
70	29	17,942	-48.0		27	28.5
50	25	18,951	-48.3		27	28.4
40	20	20,188	-47.1		27	27.5
30	14	21,701	-45.0		27	28.4
20	12	23,677	-45.0		27	25.8
15	8	24,897	-45.0			

BARTER ISLAND, AK — 1014 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	30	15	-28.8	-32.0	27	1.8
1000	29	118	-26.5	-28.5	28	1.1
950	30	489	-20.3	-22.8	29	1.1
900	30	893	-17.4	-20.5	29	1.8
850	30	1,321	-17.4	-21.5	28	2.0
800	30	1,775	-18.0	-23.9	28	2.9
750	30	2,254	-20.8	-25.8	28	3.7
700	30	2,762	-23.4	-29.4	27	3.8
650	30	3,301	-26.4	-32.9	27	4.8
600	30	3,875	-29.6	-36.1	27	5.3
550	30	4,491	-33.4	-40.3	27	6.0
500	30	5,154	-37.7	-42.5	26	7.2
450	30	5,874	-42.2	-42.6	26	8.3
400	30	6,663	-46.6		26	9.4
350	30	7,543	-51.2		26	9.5
300	30	8,534	-54.6		27	10.1
250	30	9,697	-55.4		27	12.9
200	30	11,129	-52.7		27	16.1
175	30	11,993	-51.7		27	18.1
150	30	12,996	-50.6		28	21.1
125	30	14,186	-50.1		28	24.0
100	30	15,644	-50.0		28	26.5
75	30	17,304	-49.4		28	28.8
70	30	17,981	-48.9		28	29.4
50	30	18,994	-48.9		28	31.6
40	30	20,194	-48.2		28	32.0
30	30	21,666	-47.8		28	32.6
20	29	23,572	-47.0		28	31.7
15	26	24,818	-45.4		29	29.6
10	23	26,303	-44.2		29	30.1
7	19	28,213	-42.1		29	33.6
5	6	31,148	-38.6			

BETHEL, AK — 1003 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	31	39	-14.9	-17.5	21	1.5
1000	17	119	-12.7	-15.1	23	1.5
950	31	454	-11.5	-14.7	22	1.4
900	31	868	-13.1	-16.7	23	2.3
850	31	1,301	-15.1	-19.2	24	2.7
800	31	1,759	-16.7	-23.5	24	3.0
750	31	2,241	-19.2	-26.3	24	3.4
700	31	2,752	-21.9	-28.6	24	3.8
650	31	3,295	-24.7	-32.4	24	4.6
600	31	3,873	-28.2	-36.4	23	5.5
550	31	4,493	-32.2	-40.3	23	6.1
500	31	5,160	-36.0	-44.5	23	7.1
450	31	5,886	-39.9	-43.8	23	8.3
400	31	6,684	-43.6	-46.4	23	9.3
350	31	7,577	-47.3		23	9.9
300	31	8,590	-48.5		24	10.5
250	31	9,792	-47.4		24	11.0
200	31	11,276	-45.3		24	11.0
175	30	12,165	-44.8		24	10.8
150	30	13,195	-45.0		24	10.6
125	30	14,413	-45.5		24	10.8
100	30	15,899	-46.1		25	10.8
75	30	17,379	-47.0		25	9.7
70	30	18,264	-46.8		25	9.3
50	29	19,287	-46.9		25	9.7
40	29	20,499	-46.0		25	8.9
30	29	21,981	-46.4		25	8.7
20	28	23,895	-45.5		26	8.7
15	25	25,119	-44.9		26	7.6
10	24	26,620	-43.7		26	7.1
7	21	28,596	-39.9		26	5.1
5	9	31,413	-38.1			

BISMARCK, ND — 952 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	31	503	-0.8	-9.2	30	1.3
1000						
950	20	562	-9.2	-12.0	32	1.3
900	31	963	-4.2	-11.1	29	4.8
850	31	1,393	-4.7	-13.8	30	7.9
800	31	1,869	-6.2	-16.8	30	9.7
750	31	2,371	-8.9	-19.2	30	11.2
700	31	2,903	-11.5	-21.7	31	12.3
650	31	3,468	-14.7	-25.1	30	13.0
600	31	4,070	-18.3	-27.7	30	14.2
550	31	4,714	-22.3	-31.3	29	15.9
500	31	5,408	-27.0	-35.5	29	18.5
450	31	6,160	-31.9	-40.7	28	21.5
400	31	6,982	-38.2	-44.8	28	23.8
350	31	7,891	-44.7		28	24.6
300	31	8,904	-51.3		28	25.7
250	31	10,079	-54.1		28	25.8
200	30	11,513	-52.8		28	23.0
175	30	12,378	-51.0		28	20.7
150	30	13,379	-51.9		28	18.7
125	30	14,558	-52.8		28	18.1
100	30	15,995	-54.1		28	18.4
75	29	17,422	-55.4		29	13.1
70	29	18,276	-55.3		29	12.4
50	29	19,261	-54.9		30	12.1
40	29	20,426	-54.9		31	9.8
30	26	21,890	-53.7		33	7.9
20	23	23,740	-52.6		35	8.1
15	23	24,926	-52.5		36	8.6
10	22	26,365	-52.6		01	10.2
7	15	28,286	-49.7		02	10.8
5	10	31,009	-47.6			

BOISE, ID — 916 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	31	871	-.6	-5.4	12	1.5
1000						
950						
900	30	1,015	1.0	-6.4	12	.7
850	31	1,468	-1.1	-9.0	29	2.3
800	31	1,949	-3.9	-10.7	29	4.2
750	31	2,456	-6.7	-13.7	29	4.0
700	31	2,992	-9.3	-19.0	29	7.6
650	31	3,562	-12.4	-21.9	29	9.1
600	31	4,169	-16.2	-26.0	29	10.2
550	31	4,819	-20.5	-29.1	29	11.4
500	31	5,518	-25.2	-34.0	29	12.4
450	31	6,275	-30.4	-38.2	29	13.4
400	31	7,102	-36.2	-42.9	29	14.2
350	31	8,019	-42.6	-46.1	30	15.6
300	31	9,049	-48.9		30	19.4
250	31	10,227	-53.9		30	21.0
200	31	11,650	-55.4		30	19.6
175	31	12,506	-53.5		29	18.6
150	31	13,498	-53.7		29	16.0
125	31	14,666	-55.0		29	11.9
100	30	16,089	-56.3		29	8.7
75	30	17,805	-56.7		30	6.3
70	30	18,353	-56.3		31	4.9
50	30	19,334	-55.5		32	3.6
40	29	20,499	-54.8		36	3.6
30	29	21,927	-53.8		02	4.8
20	27	23,787	-52.7		05	7.2
15	27	24,967	-52.1		05	8.4
10	25	26,415	-51.0		05	10.7
7	24	28,292	-50.0		06	13.1
5	14	30,997	-47.7		06	17.0

BROOKHAVEN, MS — 1017 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	31	1	17.3	15.5	16	1.1
1000	31	147	17.8	13.9	15	2.9
950	31	588	15.8	10.8	18	5.2
900	31	1,044	14.1	5.3	21	5.4
850	31	1,525	12.5	.7	23	6.7
800	31	2,033	10.5	-3.6	23	8.0
750	31	2,567	7.5	-7.4	24	9.5
700	31	3,132	4.2	-11.4	25	11.1
650	31	3,731	.7	-15.7	25	12.6
600	31	4,369	-3.4	-18.2	26	13.6
550	31	5,051	-8.3	-21.6	26	14.9
500	31	5,783	-13.7	-26.6	26	17.3
450	31	6,576	-19.1	-32.0	26	19.4
400	31	7,441	-25.8	-37.1	26	21.8
350	31	8,398	-32.8	-44.7	26	24.1
300	31	9,462	-41.3	-51.1	27	27.6
250	31	10,674	-51.2		27	32.1
200	31	12,097	-58.1		27	37.3
175	31	12,935	-60.0		26	35.0
150	31	13,892	-62.5		26	33.1
125	31	15,006	-66.6		26	30.0
100	30	16,345	-69.4		26	23.8
75	30	17,675	-70.3		27	15.6
70	29	18,469	-69.4		26	11.8
50	29	19,394	-66.8		27	7.1
40	29	20,507	-63.4		30	1.6
30	28	21,893	-59.7		01	2.1
20	27	23,702	-55.8		01	2.3
15	27	24,867	-53.9		03	2.3
10	24	26,306	-51.1		33	.7
7	23	28,199	-46.9		27	5.7
5	10	30,933	-41.7			

BROWNSVILLE, TX — 1012 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	31	7	18.9	16.4	15	1.7
1000	31	109	19.3	16.6	14	3.2
950	31	551	18.0	13.6	16	7.8
900	31	1,014	17.2	8.5	17	9.2
850	31	1,501	15.6	2.9	18	8.4
800	31	2,015	14.0	-2.2	19	6.9
750	31	2,557	11.9	-6.7	21	7.6
700	31	3,130	8.0	-9.2	22	8.4
650	31	3,737	3.6	-12.0	24	8.8
600	31	4,381	-1.5	-14.8	25	10.5
550	31	5,066	-7.2	-18.4	25	12.9
500	31	5,801	-12.5	-24.7	25	15.3
450	31	6,598	-17.8	-30.9	25	18.6
400	31	7,468	-24.5	-37.4	25	21.8
350	31	8,429	-31.8	-43.6	25	24.3
300	31	9,497	-40.2	-51.4	25	28.3
250	31	10,714	-50.5		25	32.3
200	31	12,138	-59.1		25	36.0
175	31	12,971	-61.2		25	35.8
150	31	13,922	-64.0		25	33.3
125	31	15,029	-67.5		25	28.5
100	31	16,360	-71.3		25	19.9
75	31	17,672	-73.0		25	15.4
70	30	18,433	-73.2		25	10.6
50	30	19,364	-69.8		25	4.2
40	29	20,466	-64.8		35	.1
30	28	21,843	-60.1		06	2.2
20	28	23,652	-56.7		06	4.5
15	23	24,815	-54.3		05	3.2
10	24	26,254	-50.6		36	.4
7	24	28,151	-45.9		24	0.3
5	8	30,855	-41.1			

BUFFALO, NY — 989 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	30	218	1.6	-1.9	23	2.6
1000						
950	30	541	1.0	-4.0	24	6.6
900	30	975	-.3	-5.2	25	11.6
850	30	1,430	-2.5	-8.1	25	14.8
800	30	1,910	-3.9	-13.6	26	15.4
750	30	2,418	-6.1	-16.3	26	16.6
700	30	2,956	-9.5	-18.7	26	17.2
650	30	3,527	-12.1	-21.9	26	19.9
600	30	4,135	-15.7	-24.4	26	21.6
550	30	4,786	-19.6	-27.5	27	23.8
500	30	5,487	-24.1	-32.3	27	23.9
450	30	6,249	-28.9	-37.2	27	25.8
400	30	7,082	-34.6	-41.2	27	26.5
350	30	8,004	-40.8	-42.5	27	29.5
300	30	9,036	-47.1		27	32.0
250	30	10,224	-53.5		27	35.0
200	29	11,639	-56.3		27	34.5
150	29	12,483	-56.1		27	31.4
100	28	13,467	-54.9		27	27.2
75	28	14,631	-55.6		27	24.1
70	28	15,050	-56.8		27	20.7
50	28	15,956	-56.8		27	15.3
40	28	17,469	-57.2		27	15.3
30	28	18,315	-56.8		28	14.2
20	24	19,293	-56.6		28	11.3
15	24	20,449	-56.8		28	8.0
10	24	21,866	-56.7		30	7.1
7	24	23,703	-55.1		32	5.9
5	23	24,865	-54.4		34	5.9
3	22	26,326	-53.0		35	3.8
2	12	28,242	-50.8		35	5.1

CAPE HATTERAS, NC — 1020 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction, tenths deg	Resultant Wind Speed m/s
SFC	31	4	11.8	8.5	33	.6
1000	31	168	13.4	6.6	26	2.1
950	31	599	11.1	2.3	26	3.9
900	31	1,048	8.5	-2.4	26	5.0
850	31	1,519	6.1	-5.4	27	7.4
800	31	2,014	4.3	-9.4	27	9.8
750	31	2,538	2.3	-13.8	27	11.5
700	31	3,092	-.4	-16.5	27	13.3
650	31	3,681	-3.4	-20.2	27	14.7
600	31	4,310	-7.4	-23.5	27	16.6
550	31	4,982	-11.9

RAWINSONDE DATA

Average monthly values

MAR. 1 19??

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
*** CARIBOU, ME — 991 MB**						
SFC	31	191	-8.2	-11.5	28	1.1
1000	A	222	-11.4	-15.1		
950	31	518	-7.9	-11.8	27	3.0
900	31	938	-8.5	-12.7	27	5.4
880	31	1,081	-9.4	-14.4	28	7.7
850	31	1,350	-10.1	-16.3	28	10.4
800	31	1,850	-12.0	-18.4	28	12.0
750	31	2,360	-12.0	-18.4	28	12.0
700	31	2,871	-14.4	-20.7	27	14.3
650	31	3,431	-17.1	-24.6	27	16.8
600	31	4,028	-20.0	-28.3	27	18.8
550	31	4,669	-23.4	-31.1	27	22.2
500	31	5,361	-27.4	-35.3	27	24.7
450	31	6,112	-32.5	-40.4	27	25.9
400	31	6,932	-38.2	-45.0	27	27.7
350	30	7,837	-44.1	-43.6	27	30.3
300	30	8,856	-49.5		27	33.7
250	29	10,058	-53.6		27	36.4
200	28	11,490	-55.4		27	32.6
175	28	12,342	-55.5		27	29.6
150	27	13,330	-54.3		27	28.8
125	27	14,501	-53.9		27	26.3
100	27	15,928	-55.4		27	24.2
90	24	17,358	-56.3		27	21.8
80	24	18,214	-56.3		27	19.2
70	24	19,206	-56.0		27	18.9
60	24	20,381	-54.3		28	17.0
50	23	21,825	-53.4		28	11.9
40	22	23,666	-53.3		28	11.0
30	20	24,837	-54.1		29	11.3
25	20	26,270	-53.3		29	10.2
20	20	27,270	-51.5		30	11.0
15	16	28,114	-51.5			
10	8	30,716	-50.2			
CENTREVILLE, AL — 1002 MB						
SFC	31	140	10.9	7.4	25	.5
1000	25	173	10.7	4.9	18	.2
950	31	587	11.8	3.0	23	4.0
900	31	1,038	10.1	.4	24	6.4
880	31	1,213	8.4	-2.8	25	8.8
850	31	1,512	6.7	-5.3	25	11.2
800	31	2,030	6.4	-3.8	25	8.6
750	31	2,558	4.6	-9.6	26	9.7
700	31	3,117	1.5	-13.1	26	10.9
650	31	3,731	-2.0	-17.0	26	12.7
600	31	4,342	-5.7	-19.7	27	14.7
550	31	5,018	-10.3	-22.4	27	16.5
500	31	5,745	-15.4	-26.6	27	18.3
450	31	6,553	-20.7	-31.6	27	19.5
400	31	7,393	-27.2	-37.2	27	21.2
350	30	8,344	-34.4	-44.9	27	23.4
300	29	9,402	-43.0		27	25.5
250	29	10,606	-52.3		28	28.8
200	28	12,025	-58.9		28	35.8
175	28	12,862	-59.3		28	36.2
150	27	13,827	-60.3		28	33.1
125	27	14,955	-63.7		27	30.0
100	27	16,315	-66.0		27	25.5
90	27	17,663	-67.2		28	17.0
80	27	18,470	-66.2		28	12.8
70	28	19,409	-63.9		28	9.3
60	25	20,533	-61.6		30	5.9
50	24	21,929	-58.8		32	4.0
40	23	23,750	-55.3		31	3.3
30	24	24,914	-54.2		31	4.2
25	22	26,345	-51.5		29	6.0
20	21	26,284	-53.1		32	3.4
15	17	28,207	-48.6		31	4.1
10	10				26	12.8
CHARLESTON, SC — 1018 MB						
SFC	30	13	12.7	9.7	22	.7
1000	30	146	15.2	10.4	22	2.5
950	30	600	13.8	7.2	23	5.6
900	30	1,054	11.3	3.3	24	6.3
880	30	1,230	8.7	-.4	25	7.3
850	30	1,530	6.4	-3.8	25	8.6
800	30	2,030	6.4	-3.8	25	8.6
750	30	2,558	4.6	-9.6	26	9.7
700	30	3,117	1.5	-13.1	26	10.9
650	30	3,710	-2.0	-17.0	26	12.7
600	30	4,342	-5.7	-19.7	27	14.7
550	30	5,018	-10.3	-22.4	27	16.5
500	30	5,745	-15.4	-26.6	27	18.3
450	30	6,553	-20.7	-31.6	27	19.5
400	30	7,393	-27.2	-37.2	27	21.2
350	30	8,344	-34.4	-44.9	27	23.4
300	29	9,402	-43.0		27	25.5
250	29	10,606	-52.3		28	28.8
200	28	12,025	-58.9		28	35.8
175	28	12,862	-59.3		28	36.2
150	27	13,827	-60.3		28	33.1
125	27	14,955	-63.7		27	30.0
100	27	16,315	-66.0		27	25.5
90	27	17,663	-67.2		28	17.0
80	27	18,470	-66.2		28	12.8
70	28	19,409	-63.9		28	9.3
60	25	20,533	-61.6		30	5.9
50	24	21,929	-58.8		32	4.0
40	23	23,750	-55.3		31	3.3
30	24	24,914	-54.2		31	4.2
25	22	26,345	-51.5		29	6.0
20	21	26,284	-53.1		32	3.4
15	17	28,207	-48.6		31	4.1
10	10				26	12.8
CHATHAM, MA — 1016 MB						
SFC	31	16	2.5	-1.2	25	1.4
1000	30	149	3.9	-2.5	28	2.2
950	30	586	1.4	-5.0	28	5.5
900	31	990	-.1	-7.7	28	8.4
880	31	1,447	-1.4	-10.1	27	10.8
850	31	1,929	-2.9	-13.0	27	12.9
800	31	2,439	-5.1	-15.8	27	14.6
750	31	2,979	-7.4	-19.5	27	17.6
700	31	3,553	-10.3	-22.3	27	19.0
650	31	4,166	-13.5	-25.6	27	21.2
600	31	4,822	-17.6	-29.3	27	22.9
550	31	5,529	-22.5	-34.5	27	24.3
500	31	6,295	-27.4	-38.6	27	26.8
450	31	7,132	-33.8	-43.5	27	28.9
400	31	8,059	-40.3	-47.4	27	31.3
350	31	9,093	-47.5		27	33.4
300	31	10,272	-53.6		27	35.8
250	30	11,693	-57.8		27	32.6
200	30	12,535	-57.3		27	30.9
175	29	13,512	-56.3		27	28.2
150	27	14,667	-57.1		27	25.6
125	27	16,074	-58.2		27	21.5
100	25	17,487	-58.2		27	15.3
90	25	18,332	-58.6		27	14.1
80	28	19,296	-58.5		28	13.0
70	28	20,452	-57.6		28	11.1
60	29	21,864	-56.5		29	8.3
50	30	23,095	-55.6		30	9.2
40	30	24,855	-54.9		30	8.1
30	31	26,277	-54.4		31	7.5
25	29	27,270	-51.9		29	7.6
CHIHUAHUA, MEXICO — 850 MB						
SFC	31	1,420	9.1	-8.2	24	1.6
1000						
950						
900						
880	29	1,485	11.3	-7.5	25	1.7
850	31	1,987	10.7	-7.4	25	4.8
800	31	2,522	7.0	-9.8	24	8.8
750	31	3,080	4.3	-13.3	25	11.5
700	31	3,680	1.4	-16.0	25	13.4
650	31	4,322	-4.1	-19.6	25	14.7
600	31	5,002	-9.1	-23.2	25	15.9
550	31	5,734	-14.5	-28.5	25	17.8
500	31	6,521	-20.3	-32.0	25	19.6
450	31	7,383	-26.0	-37.5	25	22.3
400	31	8,330	-33.9	-43.3	25	26.0
350	31	9,394	-44.5		25	28.7
300	31	10,601	-51.9		25	33.9
250	31	12,019	-59.7		25	34.4
200	31	12,853	-59.8		25	31.9
175	31	13,815	-61.4		25	29.0
150	31	14,939	-64.2		26	25.9
125	30	16,290	-66.4		26	21.0
100	28	17,641	-67.7		26	16.4
90	26	18,443	-68.0		25	12.6
80	24	19,371	-66.4		26	6.6
70	23	20,483	-62.8		29	2.9
60	21	21,863	-60.8		02	1.6
50	19	23,663	-57.5		05	3.9
40	19	24,819	-55.9		05	4.3
30	16	26,382	-53.6		06	3.3
25	11	28,107	-49.8		31	2.0
20	5	30,817	-40.7			
*** COLD BAY, AK — 1004 MB**						
SFC	30	30	-6.0	-8.0	08	.5
1000	22	96	-8.2	-8.6	35	.7
950	30	460	-6.8	-10.2	33	.2
900	30	880	-9.4	-13.4	27	1.9
880	30	1,320	-11.4	-17.0	27	3.5
850	30	1,784	-13.2	-20.8	27	4.8
800	30	2,274	-15.1	-23.2	26	6.6
750	30	2,793	-17.7	-25.8	25	8.1
700	30	3,345	-20.6	-28.9	25	9.1
650	30	3,933	-24.1	-32.9	24	10.8
600	30	4,563	-28.0	-36.9	24	12.2
550	30	5,241	-32.6	-40.6	24	13.8
500	30	5,976	-37.2	-41.4	24	15.7
450	30	6,782	-41.6	-43.5	24	16.1
400	30	7,682	-46.0		25	18.5
350	30	8,701	-48.6		25	17.2
300	29	9,901	-47.8		25	17.3
250	28	11,382	-45.9		25	16.2
200	28	12,271	-46.0		25	15.1
175	28	13,293	-46.0		25	12.7
150	27	14,503	-46.9		25	12.8
125	27	15,975	-47.9		24	10.4
100	25	17,445	-48.5		24	8.5
90	25	18,324	-48.5		24	7.9
80	24	19,337	-47.7		24	6.8
70	23	20,546	-47.7		23	5.1
60	21	22,022	-47.1		23	3.7
50	20	23,932	-46.1		20	1.8
40	21	25,147	-45.3		14	1.6
30	18	26,642	-44.0		12	2.4
25	13	28,573	-42.3		11	3.0
20	7	31,304	-40.5			
DAYTON, OH — 980 MB						
SFC	31	299	4.8	.9	23	1.4
1000						
950	31	554	4.8	-.6	23	6.0
900	31	994	3.2	-2.3	25	11.3
880	31	1,456	1.6	-5.8	26	14.0
850	31	1,943	-.6	-8.8	26	14.7
800	31	2,458	-2.4	-12.8	26	16.0
750	31	3,003	-5.5	-15.8	25	17.6
700	31	3,582	-8.2	-19.2	25	19.7
650	31	4,199	-11.7	-22.6	25	22.4
600	31	4,860	-16.1	-26.3	26	24.0
550	31	5,572	-20.7	-30.8	26	26.5
500	31	6,343	-26.1	-36.0	26	30.1
450	31	7,185	-32.3	-42.0	26	32.6
400	31	8,116	-39.0	-44.6	26	35.3
350	31	9,154	-46.8		26	37.8
300	31	10,341	-54.3		26	41.2
250	30	11,759	-58.9		26	39.8
200	30	12,598	-58.1		27	37.0
175	30	13,573	-56.8		27	31.9
150	28	14,726	-57.8		27	27.4
125	27	16,128	-59.3		27	21.7
100	25	17,524	-59.3		27	17.0
90	25	18,361	-59.6		28	14.1
80	24	19,342	-59.9		28	9.5
70	20	20,486	-58.4		29	7.2
60	19	21,894	-57.3		32	5.4
50	19	23,718	-56.2		35	4.8
40	18	24,874	-56.0		36	5.5
30	15	26,328	-53.6		02	5.8
25	12	28,272	-51.3		01	5.4
20	6	30,838	-46.4			
DEL RIO, TX — 977 MB						
SFC	31	314	14.3	6.4	08	2.4
1000						
950	31	552	14.0	6.2	12	3.1
900	31	1,007	12.7	2.7	16	3.3
880	31	1,487	12.5	-.4	19	3.9
850	31	1,995	11.1	-4.9	22	5.2
800	31	2,531	8.5	-9.2	24	7.0
750	31	3,098	5.0	-14.2	25	8.7
700	31	3,698	.9	-17.9	25	11.2
650	31	4,335	-4.0	-20.1	25	14.0
600	31	5,015	-9.0	-23.8	25	17.2
550	31	5,745	-14.7	-28.9	25	20.6
500	31	6,534	-20.5	-32.7	25	23.4
450	31	7,395	-26.5	-37.9	25	27.0
400	31	8,347	-33.7	-44.7	25	30.0
350	31	9,407	-41.8	-47.5	25	33.9
300	31	10,617	-51.4		25	39.0
250	30	12,038	-58.9		25	41.5
200	29	12,875	-59.2		25	38.8
175	29	13,837	-61.3		25	34.9
150	29	14,960	-64.4		25	30.7
125	29	16,313	-67.6		25	24.7
100	27	17,652	-68.6		25	17.6
90	29	18,454	-67.7		25	12.7
80	29	19,380	-66.6		26	7.1
70	29	20,495	-62.8		28	1.6
60	29	21,889	-60.1		34	.5
50	29	23,694	-56.8		05	3.0
40	28	24,860	-55.2		06	3.3
30	28	26,290	-53.2		07	3.0
25	27	28,155	-49.8		27	1.0
20	13	30,836	-45.5		27	8.9
DENVER, CO — 833 MB						
SFC	31	1,611	-1.0	-9.4	21	1.0
1000						
950						
900						
880	31	1,929	.6	-12.8	28	3.1
850	31	2,445	-1.8	-15.3	29	5.5
800	31	2,990	-5.4	-18.2	29	7.8
750	31	3,568	-9.1	-21.0	29	9.8
700	31	4,182	-13.5	-24.5	29	10.6
650	31	4,838	-18.1	-29.5	28	11.6
600	31	5,543	-23.3	-34.1	27	12.9
550	31	6,306	-28.9	-39.5	26	13.6
500	31	7,137	-35.4	-45.1	26	14.8
450	31	8,056	-42.3	-48.5	26	16.5
400	31	9,080	-49.1		26	17.4
350	30	10,236	-54.8		26	18.1
300	30	11,685	-56.6		26	21.1
250	30	12,534	-55.7		26	21.5
200	29	13,584	-56.4		26	18.5
175	29	14,684	-56.0		27	16.3
150	29	16,096	-57.5		27	12.8
125	30	17,501	-58.5		27	9.6
100	27	18,341	-58.7		27	7.6
90	27	19,310	-58.3		28	5.1
80	27	20,467	-57.6		33	2.8
70	27	21,889	-56.2		03	2.7
60	27	23,724	-54.9		05	6.1
50	26	24,892	-54.5		06	6.9
40	26	26,332	-53.0		07	9.1
30	21	28,214	-51.2		06	9.4
25	15	29,270	-50.6			
20	6	30,854	-50.0			
DODGE CITY, KS — 924 MB						
SFC	29	791	1.2	-5.3	29	1.5
1000						
950						
900						
880	31	977	3.8	-6.7	29	2.7
850	31	1,442	3.6	-9.4	28	4.9
800	31	1,934	2.9	-11.3	28	6.4
750	31	2,454	.7	-14.9	27	8.8
700	31	3,005	-2.7	-18.2	27	11.0
650	31	3,588	-6.8	-20.6	26	12.5
600	31	4,207	-11.4	-24.3	26	13.7
550	31	4,868	-16.0	-28.3	25	15.4
500	31	5,579	-21.2	-34.3	25	18.1
450	31	6,348	-26.9	-38.5	25	20.8
400	31	7,187	-33.2	-44.3	26	23.2
350	31	8,115	-39.9	-46.2	26	25.6
300	31	9,149	-47.1		26	29.7
250	30	10,340	-53.9		25	32.5
200	30	11,758	-57.2		26	32.9
175	30	12,604	-56.4		26	30.5
150	30	13,584	-56.0		26	26.3
125	29	14,740	-57.7		26	22.4
100	28	16,140	-59.8		26	16.9
90	27	17,534	-60.5		27	11.6
80	27	18,369	-60.2		26	8.2
70	27	19,331	-60.0		27	4.7
60	24	20,487	-58.2		32	3.4
50	24	21,887	-57.3		02	2.2
40	22	23,712	-55.2		06	6.1
30	22	24,883	-54.5		06	6.2
25	20	26,319	-52.7		06	7.5
20	16	28,203	-50.6		07	7.8
15	10	30,364	-47.3		05	6.8
EL PASO, TX — 880 MB						
SFC	31	1,193	7.6	-9.3	28	2.1
1000						
950						
900						
880	31	1,478	9.7	-9.8	27	3.0
850	31	1,978	6.5	-12.0	26	5.8
800	31	2,505	3.4	-14.5	26	9.3
750	31	3,060	-.5	-18.1	26	12.1
700	31	3,648	-4.0	-21.1	25	14.4
650	31	4,274	-8.5	-25.3	25	16.3
600	31	4,943	-13.2	-28.4	25	18.1
550	31	5,662	-18.3	-32.3	25	20.0
500	31	6,440	-23.7	-36.2	25	23.2
450	31	7,290	-29.8	-41.7	25	26.5
400	31	8,231	-36.8	-48.5	25	28.1
350	31	9,278	-44.9		25	32.3
300	31	10,474	-53.4		25	35.5
250	30	11,890	-58.4		25	33.7
200	30	12,728	-59.2		25	35.1
175	30	13,694	-59.8		26	30.3
150	30	14,828	-62.2		26	26.9
125	30	16,200	-64.3		26	19.9
100	29	17,558	-65.9		25	14.8
90	29	18,372	-64.3		26	9.4
80	29	19,316	-63.8		26	4.5
70	29	20,440	-61.3		04	1.5
60	26	21,829	-59.7		07	2.4
50	23	23,646	-56.8		06	6.0
40	23	24,840	-55.2		07	8.0
30	23	26,239	-53.1		08	7.6
25	17	28,115	-49.8		09	4.0
ELY, NV — 806 MB						
SFC	31	1,908	-5.3	-9.2	22	2.4
1000						
950						
900						
880	31	1,995	-2.0	-9.6	22	1.8
850	31	2,480	-3.7	-12.8	28	2.0
800	31	3,021	-7.2	-16.0	28	4.2
750	31	3,596	-10.1	-20.2	30	6.7
700	31	4,209	-13.5	-24.2	30	8.5
650	31	4,865	-17.9	-29.2	30	9.2
600	31	5,571	-22.7	-33.1	29	10.4
550	31	6,334	-27.9	-39.0	30	11.6
500	31	7,169	-34.4	-43.7	30	12.8
450	31	8,093	-40.8	-47.0	31	14.6
400	31	9,123	-47.9		31	17.6
350	30	10,309	-54.2		30	19.7
300	29	11,730	-55.5		29	18.7
250	29	12,581	-54.9		29	16.5
200	29	13,567	-54.7		29	14.9
175	28	14,730	-56.0		28	12.1
150	29	16,140	-58.2		28	9.5
125	29	17,543	-58.6		29	5.7
100	28	18,381	-58.2		31	3.9
90	27	19,355	-57.5		34	1.8
80	27	20,509	-56.7		01	2.0
70	27	21,927	-55.6		05	4.5
60	22	23,771	-54.3		07	7.3
50	24	24,940	-53.2		07	9.6
40	23	26,640	-51.0		07	11.5
EMPALME, MEXICO — 1012 MB						
SFC	31	12	12.6	3.3	31	1.8
1000	31	111	16.8	4.2	33	2.4
950	31	550	18.0	-1.1	34	3.6
900	31	1,010	15.9	-4.3	31	2.0
880	31	1,492	12.9	-6.9	23	2.8
850	31	1,999	10.5	-10.8	23	4.8
800	31	2,533	7.8	-12.9	24	6.1
750	31	3,097	4.3	-15.7	24	7.5
700	31	3,696	.3	-18.7	24	8.9
650	31	4,332	-4.3	-22.0	25	11.0
600	31	5,011	-9.3	-25.6	25	12.7
550	31	5,740	-14.9	-29.1	25	15.4
500	31	6,529	-20.4	-34.1	25	18.2
450	31	7,390	-26.7	-39.1	25	21.4
400	31	8,343	-34.0	-44.7	25	24.4
350	30	9,403	-42.3	-46.9	25	28.2
300	31	10,609	-51.5		25	30.7
250	31	12,074	-58.4		25	31.0
200	30	13,838	-60.0		25	29.1
175	30	14,968	-62.8		25	25.1
150	30	16,333	-65.4		25	19.6
125	29	17,681	-67.3		25	15.4
100	27	18,488	-66.1		25	11.7
90	28	19,428	-63.9		26	5.8
80	24	20,548	-62.4		27	1.2
70	24	21,937	-59.0		05	3.0
60	24	23,760	-55.9		07	4.4
50	24	24,925	-54.3		08	5.2
40	24	26,370	-51.0		09	4.1
30	17	28,261	-47.6		08	1.4
25	5	30,929	-42.7			
*** FAIRBANKS, AK — 992 MB**						
SFC	30	135	-13.7	-18.4	02	.6
1000	9	163	-12.7	-15.0		
950	30	467	-10.4	-15.6	33	.4
900	30	883	-11.5	-15.9	23	1.6
880	30	1,320	-13.2	-17.9	21	2.3
850	30	1,781	-14.7	-19.1	22	3.4
800	30	2,267	-17.0	-22.0	22	3.9
750	30	2,782	-19.9	-24.9	22	5.4
700	30	3,328	-23.3	-28.7	22	6.5
650	30	3,910	-27.2	-32.4	22	7.0
600	30	4,532	-31.4	-36.5	23	8.2
550	30	5,200	-36.0	-40.0	23	9.7
500	30	5,925	-40.7	-41.5	23	11.7
450	30	6,718	-45.6	-43.2	23	12.4
400	30	7,601	-50.3		23	13.6
350	30	8,599	-52.6		24	14.0
300	30	9,777	-51.9		24	14.3
250	30	11,236	-48.4		26	16.3
200	30	12,117	-47.6		26	16.7
175	30	13,137	-47.5		26	16.4
150	29	14,344	-47.6		27	17.8
125	29	15,817	-47.8		27	18.4
100	29	17,289	-48.0		27	18.8
90	28	18,170	-47.9		27	18.9
80	28	19,188	-47.5		28	18.8
70	28	20,394	-47.1		28	17.8
60	28	21,871	-47.1		28	18.3
50	26	23,779	-46.6		29	18.7
40	24	24,892	-45.6		29	19.1
30	24	26,478	-44.7		29	20.5
25	15	28,445	-42.9		29	17.5
FLINT, MI — 985 MB						
SFC	31	236	1.5	-3.4	21	1.9
1000						
950						
900	31	525	.1	-4.9	24	5.2
880	31	958	-1.0	-5.6	25	9.2
850	31	1,413	-2.0	-9.1	26	12.0
800	31	1,894	-3.8	-13.1	26	14.0
750	31	2,402	-5.6	-15.9	26	15.9

RAWINSONDE DATA

Average monthly values

GLASGOW, MT
930 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	690	-5.5	-9.2	02	4.4
1000						
975						
900	31	949	-3.0	-9.2	30	4.3
850	31	1,401	-4.1	-11.2	30	8.3
800	31	1,878	-6.3	-13.3	30	9.3
750	31	2,380	-9.4	-15.8	30	10.3
700	31	2,910	-12.7	-18.1	29	11.3
650	31	3,472	-15.9	-24.9	29	12.5
600	31	4,072	-19.2	-27.3	29	13.7
550	31	4,714	-23.2	-32.0	29	15.4
500	31	5,405	-28.0	-37.4	29	16.2
450	31	6,154	-33.0	-41.5	29	18.4
400	31	6,973	-38.9	-44.4	30	20.4
350	31	7,879	-45.1		30	22.0
300	31	8,892	-51.1		30	23.0
250	31	10,068	-54.1		29	22.9
200	31	11,506	-51.8		29	20.1
175	31	12,375	-50.7		29	18.7
150	31	13,379	-51.1		29	16.2
125	31	14,562	-52.3		29	15.6
100	31	16,001	-53.2		29	13.9
80	31	17,437	-53.8		30	12.2
70	31	18,295	-54.0		30	10.3
60	30	19,287	-53.8		31	9.5
50	30	20,460	-53.7		32	9.2
40	29	21,894	-53.3		33	8.7
30	28	23,761	-52.6		35	8.7
25	28	24,962	-51.7		01	9.0
20	23	26,409	-51.3		02	10.0
15	17	28,365	-49.5		05	12.3
10	7	31,033	-46.9			

GRAND JUNCTION, CO
849 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	1,472	-.6	-8.5	12	1.9
1000						
975						
900	31	1,510	-.5	-10.6	11	2.2
850	31	1,953	.4	-11.8	18	2.3
800	31	2,408	-1.8	-14.3	23	3.3
750	31	2,884	-3.6	-16.1	25	5.5
700	31	3,386	-10.4	-18.4	26	7.3
650	31	4,197	-14.8	-23.2	26	8.4
600	31	4,850	-19.2	-29.5	27	9.9
550	31	5,553	-24.2	-34.5	27	10.6
500	31	6,313	-29.3	-39.1	27	11.7
450	31	7,144	-35.2	-45.7	27	14.2
400	31	8,064	-41.9	-47.2	28	14.7
350	31	9,090	-48.5		28	16.2
300	31	10,276	-53.5		28	19.2
250	31	11,705	-54.7		28	19.3
200	31	12,562	-53.6		27	16.8
175	31	13,553	-54.6		27	15.7
150	31	14,716	-56.2		27	14.4
125	31	16,126	-58.1		27	12.1
100	31	17,529	-59.0		27	7.6
80	31	18,367	-58.5		27	6.3
70	30	19,337	-58.1		28	4.6
60	30	20,488	-57.4		32	2.1
50	29	21,914	-55.7		05	3.0
40	28	23,756	-54.7		06	6.1
30	28	24,962	-51.7		06	8.2
25	23	26,409	-51.3		07	9.7
20	17	28,240	-50.9		07	12.0

GREAT FALLS, MT
883 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	1,118	-4.2	-11.4	23	3.3
1000						
975						
900	31	1,222	-3.1	-14.3	28	10.4
850	31	1,589	-6.0	-16.1	27	10.7
800	31	1,982	-8.7	-17.3	27	9.8
750	31	2,402	-11.5	-19.6	27	10.8
700	31	2,856	-13.4	-23.4	27	11.4
650	31	3,499	-14.6	-22.6	27	12.8
600	31	4,101	-18.4	-25.3	29	12.8
550	31	4,745	-22.7	-29.3	29	13.3
500	31	5,438	-27.4	-33.7	30	15.4
450	31	6,196	-32.4	-38.0	30	18.0
400	31	7,016	-38.7	-42.5	29	19.0
350	31	7,923	-44.7		29	20.7
300	31	8,938	-50.8		30	22.9
250	31	10,114	-54.4		30	21.4
200	31	11,545	-53.1		30	17.0
175	31	12,407	-52.2		29	16.1
150	31	13,406	-52.0		29	14.9
125	31	14,587	-52.5		30	13.3
100	31	16,023	-54.4		29	11.1
80	31	17,454	-54.4		30	8.7
70	31	18,311	-54.2		31	7.2
60	31	19,312	-53.2		33	6.1
50	30	20,494	-53.0		33	4.0
40	29	21,935	-52.8		36	4.2
30	28	23,786	-52.5		03	6.0
25	28	24,968	-51.7		03	7.7
20	23	26,415	-51.8		04	8.8
15	17	28,300	-50.8		05	12.9

DENVER, CO
954 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	210	-2.0	-5.6	35	1.3
1000						
975						
900		505	-2.7	-6.1	27	4.1
850		934	-3.5	-8.5	27	6.6
800	31	1,385	-4.2	-13.8	27	8.6
750	31	1,862	-5.1	-16.1	27	10.0
700	31	2,367	-7.7	-18.9	27	12.3
650	31	2,900	-10.4	-20.7	27	14.4
600	31	3,469	-13.4	-23.4	27	16.7
550	31	4,074	-17.0	-27.2	27	19.8
500	31	4,725	-20.6	-32.1	27	21.4
450	31	5,424	-24.6	-36.5	27	23.5
400	31	6,183	-29.3	-41.1	29	26.0
350	31	7,012	-35.9	-44.4	26	28.7
300	31	7,929	-42.7	-47.9	25	29.7
250	31	8,954	-48.6		26	32.4
200	31	10,139	-53.8		26	33.6
175	31	11,564	-55.6		26	31.1
150	31	12,417	-54.0		27	27.4
125	31	13,480	-53.6		27	22.7
100	31	14,577	-55.1		27	19.8
80	31	15,998	-56.2		27	17.6
70	31	17,428	-56.6		28	14.3
60	31	18,278	-56.6		28	11.1
50	31	19,394	-54.7		29	8.4
40	30	20,852	-55.1		32	8.1
30	29	22,681	-53.9		32	6.4
25	28	23,732	-53.2		35	5.8
20	24	25,229	-52.5		35	5.2
15	19	26,857	-51.9		04	6.3
10	8	28,718	-50.5			6.5

[illegible]
981 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	275	.2	-4.6	2	1.1
1000						
975						
900	31	589	1.0	-1.2	61	1.1
850	31	1,038	2.4	-2.4	61	1.1
800	31	1,508	.4	-3.1	61	1.1
750	31	2,003	-.4	-7.1	61	1.1
700	31	2,527	-1.1	-9.7	61	1.1
650	31	3,081	-1.5	-11.7	61	1.1
600	31	3,667	-4.1	-12.6	61	1.1
550	31	4,292	-8.0	-20.4	61	1.1
500	31	4,967	-12.2	-25.1	61	1.1
450	31	5,696	-17.2	-28.2	61	1.1
400	31	6,470	-22.1	-33.4	61	1.1
350	31	7,303	-27.1	-38.0	61	1.1
300	31	8,210	-30.3	-34.1	61	1.1
250	31	9,214	-36.3	-44.1	61	1.1
200	31	10,511	-53.4		61	1.1
175	31	11,203	-53.3		61	1.1
150	31	12,760	-58.3		61	1.1
125	31	13,780	-59.4		61	1.1
100	31	14,869	-61.1		61	1.1
80	31	16,248	-63.0		61	1.1
70	31	17,619	-62.9		61	1.1
60	31	19,394	-61.4		61	1.1
50	31	20,529	-59.9		61	1.1
40	31	21,929	-57.7		61	1.1
30	30	23,752	-52.9		61	1.1
25	30	24,915	-54.7		61	1.1
20	27	26,343	-53.1		61	1.1
15	22	28,215	-49.3		61	1.1
10	8	30,863	-44.2		61	1.1

GUADALUPE IS., MEXICO
1015 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	23	13.3	9.6	32	6.1
1000	30	144	12.5	6.9	32	7.1
950	30	574	11.5	1.5	32	6.3
900	30	1,023	10.8	-4.5	31	5.1
850	30	1,500	9.4	-8.6	31	4.5
800	30	2,001	7.9	-11.9	30	5.4
750	30	2,531	5.7	-15.4	30	5.7
700	30	3,091	2.4	-18.5	29	6.8
650	30	3,686	-1.2	-21.1	28	7.9
600	30	4,319	-5.3	-24.0	27	9.0
550	30	4,990	-10.2	-28.0	27	8.8
500	30	5,723	-15.5	-32.5	27	10.4
450	30	6,509	-21.4	-37.3	27	11.9
400	30	7,366	-27.9	-41.6	27	15.2
350	30	8,314	-35.1	-47.8	27	16.9
300	30	9,368	-43.6		27	19.2
250	30	10,569	-52.9		27	20.2
200	29	11,987	-57.8		27	21.8
175	29	12,827	-59.0		27	19.9
150	29	13,792	-60.1		27	20.2
125	29	14,924	-62.6		27	17.8
100	28	16,292	-65.3		26	15.3
80	27	17,646	-65.6		26	13.2
70	26	18,458	-65.2		26	10.2
60	26	19,399	-64.2		26	8.3
50	26	20,520	-62.4		27	4.3
40	26	21,902	-60.0		36	1.5
30	25	23,722	-56.5		05	5.1
25	20	24,883	-55.2		06	5.9
20	18	26,323	-52.8		07	8.1
15	9	28,169	-48.6			
10						
7						
5						

GUAM, MARIANA IS.
998 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	111	24.2	21.5	08	4.3
1000						
975						
900	31	544	21.6	19.1	08	9.9
850	31	1,012	18.7	14.9	08	10.1
800	31	1,501	16.4	9.2	08	8.6
750	31	2,016	14.5	3.8	08	7.6
700	31	2,559	11.9	-1.7	08	7.0
650	31	3,134	8.8	-6.3	08	6.4
600	31	3,744	5.8	-9.7	07	5.5
550	31	4,396	2.8	-13.6	06	4.2
500	31	5,096	-.4	-18.5	05	4.3
450	31	5,852	-4.5	-22.9	04	4.2
400	31	6,674	-9.5	-26.7	03	3.5
350	31	7,573	-15.7	-33.4	03	3.0
300	31	8,571	-22.7	-39.7	02	2.8
250	30	9,680	-31.2	-46.6	34	1.5
200	29	10,945	-41.5		27	1.0
175	29	12,419	-53.7		21	2.2
150	29	13,204	-60.6		26	2.2
125	29	14,105	-68.3		15	1.2
100	28	16,541	-82.7		11	8.0
80	27	17,787	-80.9		10	7.1
70	24	18,550	-76.0		09	3.5
60	22	19,454	-70.7		24	.2
50	22	20,547	-66.5		24	4.3
40	22	21,908	-63.0		25	6.5
30	21	23,708	-56.4		27	4.3
25	20	24,883	-54.6		27	1.9
20	16	26,325	-50.5		35	1.6
15	11	28,206	-46.5		05	5.3
10	6	30,902	-43.3			

HILO, HI
1015 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	10	19.9	18.7	27	1.1
1000	31	139	19.7	16.7	33	.3
950	31	580	16.8	14.9	07	2.3
900	31	1,040	14.0	12.4	08	2.8
850	31	1,521	11.2	9.0	09	2.4
800	31	2,026	9.0	4.5	12	1.9
750	31	2,559	6.4	-1.1	12	1.7
700	31	3,122	3.4	-6.2	15	.8
650	31	3,720	.1	-9.6	20	1.4
600	31	4,358	-3.6	-14.7	22	2.3
550	31	5,041	-7.2	-20.7	23	3.8
500	31	5,778	-11.8	-25.8	25	5.4
450	31	6,576	-17.2	-31.2	26	8.6
400	31	7,449	-23.2	-34.3	25	13.6
350	31	8,415	-29.9	-39.9	25	19.1
300	30	9,493	-37.6	-46.7	26	20.3
250	29	10,731	-46.4		26	34.3
200	29	12,181	-55.7		27	35.8
175	29	13,023	-60.5		27	33.9
150	29	13,972	-65.5		27	28.6
125	29	15,066	-70.7		27	23.6
100	28	16,377	-73.7		27	14.4
80	26	17,679	-73.8		27	6.7
70	24	18,463	-70.9		26	3.5
60	24	19,382	-68.4		23	2.3
50	23	20,487	-65.0		17	1.6
40	22	21,860	-61.1		07	.6
30	20	23,673	-56.8		08	2.1
25	20	24,835	-54.7		07	3.3
20	16	26,270	-52.1		09	2.6
15	9	28,153	-47.7			
10	6	30,874	-42.9			

HUNTINGTON, WV
968 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	268	7.1	1.0	22	1.3
1000						
975						
900	31	585	7.9	.1	23	6.4
850	31	1,009	5.7	-1.5	25	9.9
800	31	1,476	3.6	-3.9	26	12.5
750	31	1,966	1.3	-7.7	26	13.7
700	31	2,484	-1.2	-11.7	26	14.7
650	31	3,032	-3.3	-17.0	26	16.7
600	31	3,615	-6.3	-19.1	26	18.0
550	31	4,236	-10.2	-22.5	26	19.9
500	31	4,901	-14.4	-27.0	26	22.8
450	31	5,617	-19.2	-31.2	26	25.4
400	31	6,393	-24.6	-34.2	27	27.8
350	31	7,241	-30.3	-42.5	26	30.5
300	31	8,179	-37.5	-45.0	26	33.7
250	31	9,222	-45.6		26	37.1
200	31	10,415	-54.1		26	40.2
175	31	11,027	-59.1		27	38.3
150	31	11,706	-57.9		27	36.5
125	31	13,437	-57.7		27	31.7
100	31	14,787	-59.3		27	28.4
80	28	16,180	-60.5		27	22.8
70	27	17,506	-60.7		27	17.2
60	27	18,399	-60.3		28	13.5
50	24	19,356	-59.5		28	10.4
40	24	20,499	-58.9		28	9.2
30	23	21,901	-57.3		31	6.2
25	20	23,675	-55.3		31	4.0
20	16	25,734	-54.4		34	3.6
15	8	28,208	-49.8		32	4.5

INTERNATIONAL FALLS, MN
960 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	357	-.4	-14.7	29	1.2
1000						
975						
900	30	516	-9.2	-12.6	24	1.1
850	31	924	-8.7	-13.3	25	1.1
800	31	1,366	-9.8	-17.2	25	1.1
750	31	1,833	-11.0	-20.4	25	1.1
700	31	2,327	-12.0	-21.2	24	8.9
650	31	2,852	-5.4	-23.7	24	10.7
600	31	3,409	-17.5	-26.1	24	17.0
550	31	4,005	-20.2	-29.4	24	20.1
500	31	4,644	-24.4	-33.6	24	21.4
450	31	5,333	-28.0	-36.0	24	20.1
400	31	6,080	-32.0	-39.2	24	21.4
350	31	6,896	-37.9	-43.3	26	23.1
300	31	7,798	-46.1		27	24.1
250	31	8,807	-51.9		27	24.1
200	31	9,932	-54.4		27	24.1
175	31	10,417	-52.6		27	24.1
150	31	11,028	-51.3		27	24.1
125	31	11,783	-49.7		27	24.1
100	31	12,683	-47.7		27	24.1
80	31	13,283	-51.8		27	24.1
70	31	13,466	-42.7		28	24.1
60	31	15,901	-54.0		28	24.1
50	31	17,339	-54.2		29	24.1
40	28	18,207	-54.0		29	24.1
30	28	19,191	-53.0		29	24.1
25	28	20,379	-53.1		31	23.1
20	23	21,820	-52.7		31	24.1
15	22	23,675	-52.7		33	24.1
10	8	25,853	-52.3		34	24.1
7	21	27,292	-51.9		34	24.1
5	21	28,161	-50.0		35	24.1
3	20	29,835	-47.0		34	14.4
2	14	31,158	-45.3		33	23.9
1	6	33,288	-45.0			

ISLE DEL CISNE
1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	10	24.4	20.6	10	4.6
1000	31	122	24.4	20.0	10	5.6
950	31	570	20.4	17.5	10	7.7
900	31	1,036	17.5	12.8	10	7.9
850	31	1,523	14.4	8.1	11	7.6
800	31	2,033	11.2	5.1	10	7.9
750	31	2,570	9.7	-4.2	12	7.2
700	31	3,141	8.2	-10.7	09	6.0
650	31	3,751	5.9	-13.8	08	4.6
600	31	4,402	2.6	-17.5	06	4.3
550	31	5,101	-1.2	-21.8	03	4.3
500	31	5,853	-6.4	-26.2	36	5.6
450	31	6,667	-12.6	-31.3	34	6.2
400	31	7,553	-19.8	-37.2	33	6.7
350	31	8,533	-27.4	-43.3	31	9.2
300	31	9,619	-36.1	-50.6	29	14.6
250	31	10,860	-45.5		28	18.1
200	31	12,315	-55.1		26	19.7
175	31	13,158	-59.9		26	18.4
150	31	14,110	-64.9		26	16.6
125	31	15,203	-71.2		27	10.6
100	31	16,536	-76.1		27	4.2
80	30	17,795	-76.8		03	2.3
70	29	18,569	-76.2		05	2.8
60	29	19,478	-69.4		01	1.0
50	23	20,581	-65.0		34	1.2
40	23	21,961	-59.2		34	2.0
30	23	23,788	-54.3		04	3.4
25	21	24,962	-52.6		07	4.0
20	16	26,429	-47.9		09	5.6
15	12	28,353	-43.3			
10	9	31,110	-41.7			

JACKSON, MS
1006 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	100	12.2	9.7	18	1.1
1000	31	153	12.3	8.3	17	1.9
950	31	577	12.0	5.4	20	4.7
900	31	1,029	10.7	1.9	23	7.1
850	31	1,505	8.9	-1.2	24	9.4
800	31	2,005	7.1	-4.0	25	12.0
750	31	2,534	4.8	-7.3	25	13.7
700	31	3,093	1.8	-13.6	25	15.3
650	31	3,687	-1.8	-15.6	26	16.2
600	31	4,319	-5.8	-20.3	26	19.0
550	31	4,995	-10.6	-23.9	25	21.1
500	31	5,721	-15.7	-28.0	25	22.9
450	31	6,508	-21.2	-32.7	25	25.1
400	31	7,367	-27.2	-38.6	26	27.6
350	31	8,318	-34.3	-44.2	26	30.6
300	31	9,375	-42.7	-52.0	26	33.7
250	31	10,580	-52.1		26	39.5
200	31	11,999	-59.0		26	42.0
175	31	12,834	-59.8		26	41.4
150	31	13,795	-60.9		26	37.2
125	31	14,921	-64.1		26	33.4
100	31	16,279	-66.5		26	26.9
80	29	17,622	-67.8		26	17.1
70	29	18,427	-66.9		26	12.4
60	27	19,360	-65.1		27	6.9
50	26	20,478	-62.3		27	4.7
40	24	21,863	-59.0		33	2.2
30	23	23,675	-56.9		01	2.5
25	23	24,823	-55.2		36	2.8
20	21	26,263	-53.4		01	2.6
15	18	28,128	-50.2		32	2.5
10	13	30,795	-45.2		27	3.5

JOHN F. KENNEDY INT. AP NY
1018 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	5	3.5	-4.3	30	1.4
1000	30	159	3.1	-4.5	28	1.9
950	31	568	1.7	-6.0	27	3.4
900	31	1,004	1.1	-7.8	27	7.8
850	31	1,463	.4	-10.0	28	10.8
800	31	1,948	-1.4	-13.4	28	13.1
750	31	2,460	-4.0	-16.3	28	14.7
700	31	3,001	-6.8	-19.4	27	16.0
650	31	3,577	-9.8	-23.1	27	17.4
600	31	4,191	-13.1	-25.6	27	19.9
550	31	4,848	-17.3	-28.9	27	21.4
500	31	5,556	-22.2	-33.8	27	23.3
450	31	6,322	-27.7	-37.5	27	25.9
400	31	7,158	-33.8	-41.7	27	28.3
350	31	8,085	-40.3	-44.6	27	32.1
300	31	9,117	-47.4		27	36.0
250	31	10,304	-54.6		28	39.3
200	31	11,715	-59.2		28	38.1
175	31	12,552	-59.2		28	33.0
150	31	13,574	-58.0		28	31.2
125	31	14,670	-59.3		27	27.6
100	31	16,063	-60.7		27	23.9
80	31	17,452	-60.8		27	18.4
70	31	18,282	-61.0		27	17.1
60	31	19,229	-60.3		28	14.6
50	30	20,353	-59.7		28	12.5
40	29	21,754	-59.0		29	10.9
30	29	23,543	-57.7		29	11.0
25	29	24,773	-56.9		29	9.0
20	26	26,334	-55.9		29	11.1
15	17	27,985	-53.3			

JOHNSTON IS., PACIFIC AREA
1014 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	3	23.5	19.9	07	8.9
1000	31	122	22.2	18.5	07	9.6
950	31	566	18.6	15.4	07	10.6
900	31	1,029	15.4	13.3	08	10.3
850	31	1,512	12.3	9.7	08	9.6
800	31	2,020	10.4	4.4	09	7.3
750	31	2,556	8.3	-1.8	08	5.8
700	31	3,124	5.5	-6.1

RAWINSONDE DATA

Average monthly values

KING SALMON, AK — 1005 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	15	-10.8	-13.9	13	1.3
1000	31	96	-8.7	-12.6	12	.9
950	31	452	-9.1	-12.8	19	.9
900	31	869	-11.1	-15.9	23	1.9
850	31	1,317	-12.8	-18.7	23	2.8
800	31	1,768	-14.6	-20.2	23	3.9
750	31	2,256	-16.1	-22.4	23	5.3
700	31	2,773	-18.8	-26.5	23	6.2
650	31	3,322	-21.7	-30.1	23	7.1
600	31	3,908	-25.0	-33.7	23	9.7
550	31	4,536	-28.7	-36.2	23	11.6
500	31	5,212	-32.9	-40.2	24	14.6
450	31	5,947	-37.2	-42.8	23	17.1
400	31	6,753	-41.8	-44.6	23	18.5
350	31	7,651	-46.4		23	19.1
300	31	8,664	-49.4		24	19.1
250	31	9,861	-48.4		24	18.5
200	31	11,339	-46.2		25	15.1
175	31	12,227	-46.1		25	13.9
150	31	13,252	-46.2		25	13.6
125	31	14,464	-46.5		25	13.9
100	31	15,941	-47.4		25	12.9
80	30	17,415	-48.3		25	11.1
70	30	18,265	-47.9		28	9.8
60	30	19,313	-47.9		28	9.8
50	29	20,518	-47.2		28	8.4
40	29	21,995	-47.2		28	7.2
30	28	23,907	-46.2		27	6.0
25	27	25,124	-45.5		28	5.4
20	24	26,624	-43.8		31	3.9
15	17	28,560	-41.5		25	1.3
10						

KODIAK, CAROLINE IS. — 1004 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	30	27.1	24.0	06	3.5
1000	31	79	26.4	23.4	06	4.0
950	31	531	23.0	20.8	06	7.0
900	31	1,002	20.0	17.1	06	7.7
850	31	1,494	17.1	12.6	06	7.2
800	31	2,010	15.0	7.5	07	6.6
750	31	2,555	12.5	2.9	07	5.9
700	31	3,131	9.7	-1.4	07	5.3
650	31	3,744	6.7	-5.7	07	5.8
600	31	4,397	2.9	-7.2	07	5.6
550	31	5,097	-.7	-12.7	08	5.8
500	31	5,853	-4.8	-18.8	08	5.5
450	31	6,675	-9.5	-24.0	08	7.1
400	31	7,576	-15.2	-29.8	09	6.7
350	31	8,575	-21.9	-36.4	09	6.2
300	31	9,687	-30.6	-44.2	09	6.4
250	31	10,955	-40.9	-53.4	11	6.1
200	31	12,432	-53.3		11	8.3
175	31	13,279	-60.3		11	9.6
150	31	14,222	-68.2		11	11.3
125	31	15,295	-76.2		10	12.9
100	31	16,559	-81.9		10	12.8
80	30	17,818	-77.8		07	3.5
70	30	18,595	-71.4		29	3.9
60	30	19,516	-67.1		27	6.6
50	29	20,627	-63.5		27	8.7
40	29	22,011	-59.8		27	11.1
30	28	23,832	-55.6		27	9.8
25	27	25,001	-53.9		27	7.8
20	24	26,452	-50.2		27	3.9
15	19	28,349	-47.2		12	2.9
10						

KOTZEBUE, AK — 1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	24	5	-19.2	-23.7	13	1.3
1000	24	90	-16.9	-20.3	14	.8
950	24	466	-14.8	-17.6	14	2.0
900	24	874	-15.8	-18.9	17	2.3
850	24	1,304	-17.4	-20.5	18	2.7
800	24	1,757	-19.5	-23.2	20	2.6
750	24	2,235	-21.3	-27.3	19	2.3
700	24	2,741	-23.7	-30.7	20	3.1
650	24	3,279	-26.8	-33.4	19	4.2
600	24	3,853	-30.6	-37.8	19	4.8
550	24	4,466	-34.5	-40.9	18	5.0
500	24	5,126	-38.9	-41.8	18	5.4
450	24	5,842	-43.0	-43.1	18	5.5
400	24	6,628	-47.7		18	5.3
350	24	7,506	-51.1		19	4.8
300	24	8,501	-52.9		21	6.1
250	24	9,681	-51.0		23	7.6
200	24	11,145	-48.1		24	11.3
175	24	12,026	-47.6		24	12.7
150	24	13,046	-47.2		25	14.6
125	24	14,255	-46.6		25	17.5
100	23	15,738	-46.6		25	19.3
80	23	17,218	-46.7		25	20.1
70	23	18,104	-46.6		25	20.9
60	20	19,128	-46.2		26	21.0
50	20	20,348	-46.2		26	22.2
40	18	21,832	-45.9		26	22.1
30	15	23,757	-44.9		26	23.2
25	14	24,966	-44.3		26	23.4
20	13	26,467	-43.2		26	25.7
15						
10						

KWAJALEIN, MARSHALL IS. — 1007 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC						
1000						
950						
900						
850						
800						
750						
700						
650						
600						
550						
500						
450						
400						
350						
300						
250						
200						
175						
150						
125						
100						
80						
70						
60						
50						
40						
30						
25						
20						
15						
10						

LAKE CHARLES, LA — 1016 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	9	14.6	12.5	10	1.0
1000	31	137	15.0	11.7	13	2.0
950	31	571	14.2	9.3	18	4.8
900	31	1,028	13.3	5.1	21	6.3
850	31	1,508	11.9	2.5	22	8.7
800	31	2,014	9.4	-1.4	23	10.4
750	31	2,547	6.8	-7.6	24	11.0
700	31	3,110	3.6	-10.9	25	11.3
650	31	3,709	.2	-15.2	25	13.3
600	31	4,345	-4.2	-18.6	25	15.2
550	31	5,024	-9.3	-22.9	25	17.3
500	31	5,754	-14.5	-27.3	25	20.0
450	30	6,544	-19.8	-30.5	26	22.6
400	30	7,407	-26.3	-35.2	26	25.1
350	30	8,362	-33.4	-43.9	26	27.6
300	30	9,423	-41.8	-50.8	26	30.3
250	30	10,632	-51.5		26	36.0
200	30	12,054	-58.7		26	40.5
175	30	12,889	-60.2		26	38.1
150	30	13,848	-61.3		26	33.6
125	29	14,971	-64.5		25	29.7
100	29	16,321	-67.6		25	23.5
80	28	17,654	-69.3		26	15.3
70	28	18,454	-68.1		26	12.3
60	27	19,385	-65.7		27	7.0
50	27	20,502	-62.8		26	3.3
40	26	21,884	-60.2		26	1.6
30	24	23,696	-56.4		05	1.8
25	23	24,863	-55.0		36	1.4
20	22	26,298	-52.6		33	1.2
15	19	28,185	-49.4		29	1.5
10	15	30,854	-44.3		27	10.0

LANDER, WY — 824 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	1,697	-4.3	-10.7	21	1.3
1000						
950						
900						
850						
800	31	1,927	-3.0	-13.7	27	.8
750	31	2,436	-5.4	-16.7	28	2.7
700	31	2,975	-8.5	-19.2	28	5.9
650	31	3,540	-12.2	-22.0	29	10.1
600	31	4,154	-15.7	-26.4	29	12.1
550	31	4,814	-20.0	-30.4	29	11.8
500	31	5,524	-25.2	-34.4	28	12.3
450	31	6,261	-30.9	-38.1	28	13.7
400	31	7,085	-37.2	-43.9	28	14.6
350	31	7,998	-43.8		29	15.6
300	31	9,015	-50.3		29	17.7
250	31	10,192	-54.7		29	19.3
200	31	11,620	-54.1		28	16.9
175	31	12,479	-53.0		28	16.9
150	31	13,474	-53.2		28	14.1
125	29	14,646	-54.7		28	12.5
100	29	16,064	-57.2		28	10.8
80	29	17,475	-57.1		29	8.3
70	29	18,322	-56.5		29	5.1
60	28	19,307	-56.3		30	3.7
50	24	20,467	-55.6		34	2.9
40	24	21,892	-54.9		02	4.6
30	24	23,733	-54.3		04	6.9
25	24	24,905	-53.7		04	8.0
20	22	26,343	-52.7		05	9.3
15	15	28,204	-50.8		05	12.6
10						

LIHUE KAUAI, HI — 1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	36	20.4	17.1	05	3.8
1000	31	151	20.2	15.8	05	5.1
950	31	492	16.5	13.9	05	6.8
900	31	1,050	13.2	10.9	06	6.3
850	31	1,630	10.2	7.8	07	4.9
800	31	2,033	8.0	1.2	08	3.0
750	31	2,564	6.0	-6.9	09	1.3
700	31	3,126	3.3	-13.0	30	.2
650	31	3,724	.4	-17.7	28	1.1
600	31	4,362	-3.5	-21.5	27	2.0
550	31	5,044	-7.8	-25.3	27	3.2
500	31	5,778	-13.0	-29.5	27	4.9
450	31	6,572	-18.9	-33.8	28	7.1
400	31	7,438	-25.6	-39.0	27	10.7
350	31	8,395	-32.9	-45.3	26	13.9
300	31	9,459	-40.1	-47.9	27	21.7
250	31	10,683	-47.8		27	30.2
200	31	12,129	-55.7		27	35.4
175	31	12,973	-59.0		27	32.2
150	31	13,931	-63.1		27	26.4
125	30	15,040	-68.0		27	20.9
100	30	16,367	-72.0		27	14.9
80	28	17,682	-71.8		28	5.8
70	29	18,472	-69.7		26	2.1
60	29	19,399	-67.2		14	.9
50	29	20,507	-64.3		16	1.5
40	29	21,885	-60.7		09	3.0
30	27	23,694	-56.5		08	4.3
25	26	24,858	-54.7		06	3.0
20	21	26,289	-51.6		07	3.5
15	10	28,170	-48.6		10	1.8
10	12	30,862	-42.7			

LITTLE ROCK, AR — 997 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	79	10.3	6.2	21	1.0
1000		214	5.8	-2.9		
950		572	9.9	1.7	24	5.0
900	31	1,020	8.0	-1.9	25	7.4
850	31	1,490	6.5	-4.7	25	9.4
800	31	1,987	5.2	-10.5	26	10.9
750	31	2,512	2.9	-14.5	26	12.6
700	31	3,066	-.6	-16.9	26	13.7
650	31	3,655	-4.3	-19.6	26	15.8
600	31	4,280	-8.6	-22.0	26	18.5
550	31	4,949	-13.2	-26.4	26	20.4
500	31	5,668	-17.7	-31.4	26	23.6
450	31	6,448	-23.4	-35.2	25	25.9
400	31	7,298	-29.5	-41.1	25	28.4
350	30	8,240	-36.6	-46.3	25	31.8
300	30	9,288	-44.2		26	37.9
250	30	10,487	-52.9		26	41.6
200	30	11,903	-58.7		26	40.8
175	30	12,743	-58.1		26	40.3
150	30	13,712	-59.0		26	36.6
125	30	14,850	-61.4		26	31.7
100	30	16,227	-63.5		26	24.0
80	29	17,590	-64.5		27	16.6
70	29	18,409	-63.0		27	11.9
60	29	19,360	-61.9		27	6.6
50	29	20,492	-60.5		29	3.6
40	29	21,889	-58.6		34	2.6
30	28	23,709	-56.3		02	2.7
25	26	24,870	-54.8		02	3.5
20	26	26,302	-53.3		03	4.0
15	26	28,171	-49.8		36	2.8
10	17	30,810	-45.9		30	5.7

LONGVIEW, TX — 1002 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	124	11.3	8.5	19	.7
1000	20	167	9.6	4.2	06	.4
950	31	571	11.4	4.1	20	3.3
900	31	1,023	10.4	.1	22	5.8
850	31	1,498	9.3	-1.4	24	7.2
800	31	1,999	7.8	-5.4	25	8.8
750	31	2,530	5.5	-10.2	25	10.1
700	31	3,090	2.0	-13.4	25	12.7
650	31	3,684	-2.0	-15.9	25	14.9
600	31	4,315	-6.5	-20.9	26	17.1
550	31	4,989	-11.1	-24.3	26	20.2
500	31	5,713	-16.3	-28.4	26	22.3
450	31	6,498	-21.5	-33.3	25	24.6
400	31	7,356	-27.6	-40.0	26	27.5
350	31	8,306	-34.8	-45.7	26	31.5
300	31	9,361	-42.9		26	35.3
250	31	10,565	-52.6		26	39.5
200	31	11,980	-59.0		26	40.4
175	31	12,817	-59.6		26	38.3
150	31	13,779	-60.7		26	34.0
125	31	14,908	-62.9		26	31.2
100	30	16,271	-66.1		26	25.2
80	30	17,618	-67.3		26	17.8
70	27	18,425	-65.8		26	12.7
60	25	19,363	-63.5		27	6.3
50	25	20,488	-61.3		27	3.4
40	24	21,880	-59.1		33	1.8
30	23	23,694	-56.4		06	3.6
25	23	24,856	-55.2		03	1.9
20	20	26,289	-52.3		04	3.9
15	19	28,161	-49.1		01	2.0
10	13	30,840	-44.1			

MCGRATH, AK — 995 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	103	-15.2	-18.6	29	.6
1000	10	153	-10.4	-12.8		
950	31	460	-11.1	-15.2	13	.3
900	31	874	-12.4	-16.0	16	1.8
850	31	1,309	-14.0	-17.3	17	2.7
800	31	1,769	-15.4	-19.5	19	3.7
750	31	2,254	-17.8	-22.4	19	4.0
700	31	2,767	-21.0	-25.9	19	5.3
650	31	3,311	-24.3	-29.2	20	6.9
600	31	3,891	-27.4	-34.3	20	8.0
550	31	4,512	-31.4	-37.6	21	9.7
500	31	5,181	-35.8	-41.4	21	11.1
450	31	5,906	-40.4	-39.8	21	12.1
400	31	6,701	-44.9		21	12.4
350	31	7,589	-48.6		22	13.2
300	31	8,595	-50.6		23	13.5
250	31	9,786	-49.0		23	14.2
200	31	11,260	-46.5		24	14.9
175	31	12,148	-45.9		24	15.4
150	29	13,174	-45.9		25	14.7
125	29	14,388	-46.1		25	15.0
100	28	15,867	-46.5		26	15.0
80	28	17,343	-47.0		26	15.0
70	27	18,224	-47.1		26	14.8
60	27	19,245	-47.0		26	15.0
50	27	20,454	-46.4		27	14.7
40	27	21,937	-46.1		27	13.7
30	27	23,851	-45.6		27	13.4
25	23	25,068	-45.2		27	14.3
20	23	26,561	-44.5		28	14.0
15	22	28,500	-42.3		28	15.4
10	16	31,239	-39.8		28	17.4

MAJURO, MARSHALL IS. — 1009 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	3	27.5	23.9	08	4.7
1000	31	84	26.3	22.9	08	5.9
950	31	536	22.9	20.8	08	7.9
900	31	1,007	20.2	17.8	09	8.1
850	31	1,500	17.7	14.1	09	7.5
800	31	2,018	15.4	10.1	09	6.3
750	31	2,564	13.0	6.1	09	5.5
700	31	3,142	9.9	2.9	09	3.7
650	31	3,755	6.4	-.5	09	1.2
600	31	4,408	2.8	-3.5	22	.6
550	31	5,109	-.6	-7.4	22	1.5
500	31	5,866	-4.7	-14.0	17	.4
450	31	6,688	-9.3	-19.3	23	1.6
400	31	7,590	-14.9	-26.0	27	3.0
350	31	8,591	-21.3	-34.3	28	4.8
300	31	9,707	-29.2	-42.5	27	6.0
250	31	10,993	-39.6	-51.8	27	7.7
200	31	12,469	-52.0		28	8.7
175	31	13,320	-58.9		28	8.4
150	31	14,270	-66.5		29	8.1
125	30	15,354	-74.4		33	6.7
100	30	16,631	-80.1		03	6.8
80	30	17,868	-76.9		35	3.0
70	29	18,675	-71.2		24	6.6
60	28	19,604	-65.8		27	11.4
50	28	20,723	-61.5		27	13.4
40	28	22,115	-58.0		27	12.6
30	28	23,944	-54.4		27	12.0
25	28	25,117	-52.1		27	8.4
20	24	26,567	-49.5		25	2.9
15	17	28,465	-46.5		09	4.8
10						

MEDFORD, OR — 972 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	401	1.7	-.2	12	.3
1000	31					
950	31	587	3.2	-1.5	30	.8
900	31	1,025	2.1	-3.6	24	1.5
850	31	1,485	-.2	-7.0	23	3.0
800	31	1,968	-2.7	-10.5	25	4.2
750	31	2,477	-5.1	-15.2	28	5.9
700	31	3,017	-7.8	-19.1	28	7.7
650	31	3,590	-10.9	-22.5	28	9.5
600	31	4,201	-14.5	-26.4	29	10.7
550	31	4,855	-18.5	-28.8	29	13.1
500	31	5,560	-22.8	-33.5	30	15.7
450	31	6,324	-28.4	-37.8	30	16.6
400	31	7,158	-34.5	-43.9	30	17.2
350	31	8,086	-41.0	-45.4	30	17.6
300	29	9,115	-48.0		31	21.0
250	29	10,290	-55.1		31	21.6
200	26	11,702	-57.7		31	18.4
175	26	12,549	-54.9		31	15.9
150	26	13,536	-54.7		31	13.6
125	30	14,700	-56.0		30	11.9
100	26	16,113	-57.9		30	8.7
80	26	17,520	-57.4		31	6.4
70	26	18,364	-57.6		33	5.0
60	26	19,340	-56.8		36	3.3
50	26	20,498	-55.7		03	4.1
40	26	21,922	-54.9		05	5.5
30	26	23,769	-53.7		06	7.4
25	26	24,944	-52.8		06	9.3
20	24	26,387	-51.7		07	10.1
15	19	28,258	-50.4		06	13.2
10	16	30,920	-47.7		07	17.9

MERIDA, MEXICO — 1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	11	20.6	19.6	11	2.5
1000	31	123	21.2	19.8	12	5.7
950	31	569	20.6	16.1	13	9.7
900	31	1,036	19.2	9.4	13	8.7
850	31	1,526	16.8	4.3	13	6.4
800	31	2,040	14.1	1.2	13	4.1
750	31	2,582	11.3	-4.1	14	3.2
700	31	3,155	8.4	-9.6	14	2.2
650	31	3,764	5.2	-13.1	13	.8
600	31	4,414	2.3	-18.4	32	.8
550	31	5,110	-2.3	-22.6	31	3.0
500	31	5,859	-7.8	-27.1	29	4.2
450	31	6,668	-13.9	-31.7	29	6.3
400	31	7,551	-20.8	-37.2	27	9.3
350	31	8,526	-28.6	-42.7	28	11.0
300	31	9,608	-37.4	-50.0	28	13.1
250	30	10,841	-46.8		27	17.3
200	30	12,289	-55.9		27	19.2
175	29	13,130	-59.7		26	19.4
150	29	14,086	-63.7		26	18.9
125	29	15,189	-69.5		26	15.9
100	26	16,460	-74.2		26	8.9
80	26	17,797	-75.8		28	4.1
70	26	18,571	-74.6		32	2.0
60	26	19,477	-70.1		34	1.4
50	26	20,577	-65.3		01	1.0
40	26	21,965	-59.9		34	1.2
30	26	23,774	-54.6		03	1.1
25	26	24,938	-52.0		04	1.7
20	26	26,393	-48.4		07	3.5
15	18	28,300	-45.2		11	2.8
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MIAMI, FL — 1019 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tenths of deg	Resultant Wind: Speed m p s
SFC	31	4	21.7	18.2	10	1.7
1000	31	167	21.3	16.3	11	3.4
950	31	609	17.6	14.2	13	5.2
900	31	1,070	14.6	10.1	13	4.4
850	31	1,552	11.8	4.7	14	2.4
800	31	2,059	11.1	-4.0	17	.7
750	31	2,595	9.0	-8.4	25	.8
700	31	3,163	5.6	-12.1	30	1.5
650	31	3,765	1.8	-14.5	30	3.0
600	31	4,406	-1.8	-19.9	30	5.1
550	31	5,092	-6.1	-23.9	29	7.8
500	31	5,831	-11.2	-28.1	29	10.6
450	31	6,631	-16.7	-33.3	29	11.7
400	31	7,504	-23.4	-38.6	29	13.4
350	31	8,470	-30.8	-44.4	29	16.0
300	31	9,542	-39.3	-52.1	29	18.8
250	31	10,767	-48.1		29	22.3
200	31	13,210	-55.7		28	26.9
175	31	13,056	-58.4		28	26.0
150	31	14,016	-62.5		27	25.9
125	31	15,128	-67.3		27	23.5
100	31	16,460	-71.7		28	17.5
80	31	17,770	-72.8	

RAWINSONDE DATA

Average monthly values

ALBUQUERQUE, NM
5314 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	423	15.5	11.4	34	1.6
1000						
950	31	553	10.1	11.5	38	1.7
900	31	1,013	15.6	9.0	01	.7
850	31	1,498	15.5	3.7	18	2.7
800	31	2,006	14.3	-4.4	21	4.3
750	31	2,536	11.5	-4.4	24	5.6
700	31	3,126	7.7	-8.8	25	7.4
650	31	3,782	3.4	-13.0	25	9.4
600	31	4,536	-1.7	-16.7	25	11.5
550	31	[illegible]	-7.0	-21.2	24	14.2
500	31	5,797	-12.4	-26.7	25	17.8
450	31	6,593	-17.9	[illegible]	25	19.8
400	31	7,463	-24.2	[illegible]	25	22.3
350	31	8,487	-31.2	-42.3	25	[illegible]
300	31	9,496	-40.1	-49.4	25	26.9
250	31	10,713	-50.4		25	29.6
200	31	12,138	-58.8		25	34.1
175	31	12,972	-60.8		25	34.1
150	31	13,924	-63.5		25	31.5
125	31	15,036	-67.1		25	27.0
100	30	16,371	-70.5		25	22.0
80	30	17,693	-71.6		25	15.6
70	30	18,479	-72.6		25	12.1
60	30	19,391	-68.9		25	7.5
50	27	20,495	-66.1		26	1.7
40	27	21,809	-60.4		26	1.9
30	27	23,682	-57.1		06	3.5
25	27	24,841	-54.7		06	2.5
20	27	26,278	-52.2		29	.2
15	27	28,161	-47.6		28	4.5
10	18	30,878	-41.7		25	12.8
7						
5						
4						

BISMARCK, ND
1491 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	538	6.2	[illegible]	20	2.0
1000					6	
950	31	571	9.2	2.4	23	6.8
900	31	1,018	7.1	-.8	25	9.5
850	31	1,486	4.9	-3.7	25	11.5
800	31	1,979	2.8	-6.1	25	13.0
750	31	2,500	.8	-9.7	26	14.0
700	31	3,052	-1.5	-15.6	26	15.3
650	31	3,639	-4.9	-18.6	26	17.9
600	31	4,265	-8.5	-21.9	26	19.2
550	31	4,934	-12.6	-24.8	26	22.3
500	31	5,655	-17.6	-29.3	25	24.9
450	31	6,436	-23.2	-35.1	25	26.5
400	31	[illegible]	-29.7	-40.6	25	29.1
350	30	8,224	-36.8	-45.5	25	31.2
300	30	9,270	-45.0		24	31.2
250	30	10,465	-53.5		24	31.6
200	30	11,877	-59.2		24	38.5
175	30	12,718	-58.0		24	37.8
150	30	13,687	-58.9		27	33.8
125	30	14,827	-60.8		27	29.2
100	30	16,207	-63.3		26	24.6
80	30	17,578	-62.9		27	17.4
70	30	18,401	-62.3		27	12.1
60	30	19,355	-61.9		29	8.8
50	29	[illegible]	-60.0		29	6.4
40	29	21,886	-58.2		31	4.3
30	24	23,702	-56.2		33	4.2
25	24	24,861	-55.2		38	4.5
20	26	26,292	-53.3		34	3.8
15	22	28,132	-50.7		31	6.2
10	14	30,816	-45.5			

BOISE, ID
2,867 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	1,180	9.0	4.8	21	1.3
1000	6	218	4.7	-2.9		
950	31	571	9.2	2.4	23	6.8
900	31	1,018	7.1	-.8	25	9.5
850	31	1,486	4.9	-3.7	25	11.5
800	31	1,979	2.8	-6.1	25	13.0
750	31	2,500	.8	-9.7	26	14.0
700	31	3,052	-1.5	-15.6	26	15.3
650	31	3,639	-4.9	-18.6	26	17.9
600	31	4,265	-8.5	-21.9	26	19.2
550	31	4,934	-12.6	-24.8	26	22.3
500	31	5,655	-17.6	-29.3	25	24.9
450	31	6,436	-23.2	-35.1	25	26.5
400	31	[illegible]	-29.7	-40.6	25	29.1
350	30	8,224	-36.8	-45.5	25	31.2
300	30	9,270	-45.0		24	31.2
250	30	10,465	-53.5		24	37.8
200	30	11,877	-59.2		24	38.5
175	30	12,718	-58.0		24	37.8
150	30	13,687	-58.9		27	33.8
125	30	14,827	-60.8		27	29.2
100	30	16,207	-63.3		26	24.6
80	30	17,578	-62.9		27	17.4
70	30	18,401	-62.3		27	12.1
60	30	19,355	-61.9		29	8.8
50	29	[illegible]	-60.0		29	6.4
40	29	21,886	-58.2		31	4.3
30	24	23,702	-56.2		33	4.2
25	24	24,861	-55.2		38	4.5
20	26	26,292	-53.3		34	3.8
15	22	28,132	-50.7		31	6.2
10	14	30,816	-45.5			

BOISE, ID
2,867 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	[illegible]	-19.2	08	2.3	
1000	24	89	-14.8	07	2.3	
950	31	430	-13.7	-16.9	13	2.8
900	31	860	-15.0	-17.9	14	3.0
850	31	1,291	-16.8	-21.3	14	3.1
800	31	1,745	-18.6	-23.9	14	3.1
750	31	2,224	-20.9	-27.6	16	2.1
700	31	2,731	-23.6	-30.8	17	2.0
650	31	[illegible]	-28.1	-34.4	18	1.8
600	31	3,863	-30.3	-37.2	19	2.2
550	31	4,457	-34.2	-41.8	17	2.9
500	31	5,119	-37.9	-45.2	21	3.7
450	30	5,838	-42.2	-44.9	22	3.7
400	30	6,627	-46.3		22	4.5
350	30	7,510	-49.7		21	4.8
300	30	8,513	-51.2		22	6.9
250	30	9,703	-49.0		23	8.8
200	29	11,174	-46.9		24	11.9
175	30	12,060	-46.5		24	12.7
150	30	13,084	-46.6		24	13.3
125	30	14,295	-46.2		24	14.9
100	30	15,777	-46.7		25	16.7
80	30	17,257	-46.8		25	17.4
70	30	18,103	-47.0		25	17.4
60	30	19,163	-47.4		25	17.9
50	29	20,374	-46.4		25	17.2
40	29	21,860	-45.5		26	17.2
30	28	23,783	-45.8		26	16.6
25	28	24,998	-45.2		26	17.3
20	26	26,503	-43.7		26	16.4
15	21	28,444	-41.5		26	17.1
10	8	31,299	-37.4			
7						
5						
4						

BOISE, ID
2,867 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	30	847	-3.9	-3.0	34	.6
1000						
950	30	974	-4.1	-7.5	32	2.7
900	30	1,427	-4.1	-7.7	31	5.6
850	30	1,912	-6.1	-11.1	32	7.2
800	30	2,420	-8.7	-14.6	30	9.4
750	30	2,970	-10.6	-17.0	30	11.2
700	30	3,560	-11.5	-20.3	30	11.3
650	30	4,160	-12.6	-24.1	27	13.0
600	30	4,810	-17.9	-28.0	27	13.9
550	30	5,521	-23.0	-33.7	26	16.3
500	30	6,285	-28.0	-38.4	26	18.5
450	30	7,110	-34.8	-43.5	26	18.8
400	30	8,039	-41.8	-47.8	26	19.1
350	29	9,064	-49.1		26	20.7
300	29	10,243	-50.2		26	24.9
250	29	11,664	-55.0		26	25.9
200	29	12,517	-54.3		26	24.2
175	29	13,507	-53.9		27	21.3
150	29	14,674	-53.2		27	17.2
125	28	16,088	-51.6		27	15.0
100	28	17,496	-48.3		27	11.3
80	28	18,335	-48.5		28	9.8
70	27	19,307	-51.7		28	7.5
60	27	20,459	-51.6		30	5.6
50	23	21,887	-49.6		34	2.3
40	22	23,743	-44.1		02	4.8
30	22	24,912	-43.6		05	6.8
25	22	26,367	-42.1		06	8.4
20	19	28,230	-42.7		05	8.6
15	13	30,896	-44.1		06	8.6
10	17	33,263	-44.1		03	7.6
7	13	35,557	-49.0			
5	5	37,071	-49.4			
4						

LAS VEGAS, NV
1219 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	6	7.8	4.9	30	.4
1000	31	161	8.3	4.3	31	1.3
950	31	585	7.5	-1.4	32	2.8
900	31	1,029	6.3	-7.1	32	3.4
850	31	1,496	4.5	-12.2	32	3.3
800	31	1,987	2.1	-12.6	32	4.2
750	31	2,507	.3	-16.6	31	6.3
700	31	3,060	-3.8	-18.8	31	7.6
650	31	3,640	-6.6	-21.2	31	8.9
600	31	4,260	-10.7	-24.6	30	9.8
550	31	4,923	-15.3	-29.7	30	11.0
500	31	5,640	-20.7	-34.2	30	12.2
450	31	6,406	-26.2	-39.4	30	14.0
400	31	7,247	-32.6	-44.0	31	14.7
350	31	8,178	-39.2	-45.8	31	16.3
300	30	9,219	-47.1		31	17.4
250	30	[illegible]	-54.8		31	20.2
200	30	11,815	-58.6		31	20.9
175	30	12,656	-57.8		30	18.7
150	30	13,631	-57.1		29	16.1
125	30	14,782	-58.8		29	13.2
100	30	16,178	-60.4		30	10.1
80	30	17,568	-60.4		30	5.9
70	30	18,401	-60.2		30	4.3
60	30	19,366	-58.8		34	2.4
50	30	20,514	-57.4		05	3.1
40	30	21,928	-56.2		07	5.6
30	30	23,762	-54.9		07	8.4
25	28	24,932	-53.6		07	10.5
20	28	26,379	-52.0		07	11.5
15	27	28,250	-49.6		08	13.2
10	14	30,743	-46.8		08	15.3
7						
5						
4						

OMAHA, NE
964 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	403	.4	-4.1	33	1.6
1000	31	562	1.1	-4.4	31	.7
950	31	954	1.3	-7.3	30	5.2
900	31	1,414	.8	-9.7	29	8.2
850	31	1,899	-1.0	-11.7	29	9.1
800	31	2,412	-3.1	-14.5	28	10.8
750	31	2,956	-5.9	-18.0	28	13.0
700	31	3,533	-9.1	-21.3	27	14.7
650	31	4,148	-13.0	-25.3	27	16.3
600	31	4,806	-17.4	-28.6	27	17.3
550	31	5,513	-22.3	-33.7	27	17.8
500	31	6,278	-28.1	-37.4	27	18.3
450	31	7,112	-34.7	-43.7	27	19.3
400	31	8,033	-42.1	-48.6	27	21.4
350	31	9,059	-48.8		27	25.2
300	30	10,241	-54.2		26	29.3
250	30	11,664	-56.0		26	28.3
200	30	12,516	-55.2		27	25.9
175	30	13,504	-54.0		27	22.8
150	30	14,671	-55.4		27	18.9
125	30	16,085	-57.9		27	16.4
100	30	17,490	-58.4		28	12.5
80	30	18,331	-58.5		28	10.5
70	29	19,306	-57.8		28	7.8
60	30	20,459	-56.8		30	5.3
50	26	21,874	-55.9		32	5.2
40	26	23,710	-54.7		36	4.3
30	25	24,877	-54.2		36	4.3
25	23	26,309	-53.4		02	5.1
20	20	28,191	-50.7		01	6.2
15	14	30,882	-48.1		02	4.4
10	6	33,236	-46.6			
7						
5						
4						

PAGO PAGO, AMERICAN SAMOA
1010 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	5	29.7	23.7	08	4.3
1000	31	98	27.3	22.2	08	4.5
950	31	549	23.3	20.3	07	4.7
900	31	1,020	20.0	16.8	07	5.3
850	31	1,511	16.9	12.2	07	5.6
800	31	2,027	14.2	9.0	07	5.7
750	31	2,570	11.5	4.6	07	5.6
700	31	3,145	8.4	-.8	07	4.9
650	31	3,754	5.1	-4.8	08	4.4
600	31	4,404	1.5	-10.4	07	4.4
550	31	5,100	-2.3	-16.7	07	3.9
500	31	5,850	-6.8	-21.9	08	3.6
450	31	6,665	-11.8	-27.0	08	3.8
400	31	7,558	-17.4	-32.1	10	3.2
350	31	8,547	-24.5	-38.1	13	3.1
300	31	9,648	-33.1	-45.7	14	3.3
250	31	10,903	-43.4		16	4.9
200	31	12,366	-55.3		19	6.7
175	31	13,205	-61.7		19	7.6
150	31	14,145	-68.4		21	7.4
125	31	15,233	-73.6		22	7.5
100	31	16,516	-75.7		20	3.5
80	31	17,816	-72.4		10	3.3
70	31	18,604	-71.4		09	5.0
60	31	19,524	-67.6		09	6.6
50	30	20,632	-63.9		09	7.0
40	30	22,014	-60.1		09	7.9
30	30	23,830	-55.7		09	10.7
25	29	25,001	-52.8		08	12.1
20	27	26,452	-49.6		09	14.8
15	24	28,340	-46.4		09	19.3
10	14	31,068	-40.9		09	28.1
7	8	33,480	-38.0			
5						
4						

PEORIA, IL
990 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	200	2.9	.6	22	1.3
1000						
950	31	531	3.1	-2.5	25	4.7
900	31	969	2.8	-5.7	26	8.9
850	31	1,430	1.0	-8.8	27	12.0
800	31	1,910	-1.1	-12.7	27	12.1
750	31	2,429	-3.5	-15.8	27	13.8
700	31	2,971	-6.6	-17.7	27	15.2
650	31	3,547	-9.3	-21.4	27	17.8
600	31	4,162	-12.7	-25.7	27	20.8
550	31	4,821	-17.1	-29.8	26	22.7
500	31	5,529	-22.0	-34.3	26	24.4
450	30	6,293	-27.8	-39.0	26	25.6
400	30	7,129	-34.2	-43.9	26	26.7
350	30	8,054	-40.3	-47.9	26	29.8
300	30	9,087	-47.2		26	33.6
250	30	10,277	-53.3		26	35.3
200	30	11,701	-56.3		26	34.2
175	30	12,550	-55.6		26	33.1
150	30	13,534	-55.4		27	30.2
125	29	14,694	-56.2		27	23.6
100	29	16,104	-58.6		27	20.5
80	27	17,507	-59.3		27	16.0
70	27	18,344	-58.9		28	13.6
60	27	19,313	-58.3		29	10.6
50	27	20,463	-57.6		30	7.8
40	26	21,874	-56.8		31	6.2
30	24	23,703	-55.7		34	5.3
25	22	24,885	-54.4		36	5.9
20	22	26,317	-53.8		35	7.3
15	18	28,213	-51.7		01	7.0
10	14	30,851	-48.7		01	7.4
7	9	33,168	-45.6			
5	6	35,516	-43.9			
4						

PITTSBURGH, PA
973 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	359	4.7	-3.0	22	2.5
1000						
950	31	557	5.4	-2.2	23	4.9
900	31	997	2.8	-2.7	24	9.7
850	31	1,458	.3	-5.2	25	12.6
800	31	1,944	-1.0	-11.4	26	14.5
750	31	2,457	-3.4	-14.0	26	15.7
700	31	2,999	-6.1	-18.0	27	18.2
650	31	3,570	-7.6	-19.7	27	20.4
600	31	4,192	-12.7	-23.4	27	22.7
550	31	4,850	-17.1	-27.2	27	24.3
500	31	5,558	-21.6	-30.8	27	25.7
450	31	6,327	-26.0	-35.5	27	28.2
400	31	7,168	-32.0	-41.6	27	31.5
350	31	8,098	-39.2	-44.4	27	35.9
300	30	9,135	-40.9		27	40.0
250	30	10,323	-54.0		27	41.6
200	30	11,778	-58.0		27	39.4
175	30	12,579	-57.7		27	35.1
150	30	13,558	-58.0		27	31.1
125	30	14,704	-58.3		27	28.7
100	30	16,106	-59.0		27	23.3
80	30	17,500	-59.2		28	18.3
70	30	18,336	-58.7		28	14.5
60	28	19,312	-58.0		28	10.6
50	28	20,459	-58.0		28	9.4
40	28	21,868	-57.1		30	8.5
30	28	23,695	-55.8		31	6.2
25	25	24,849	-54.9		32	5.9
20	24	26,279	-54.5		31	6.6
15	22	28,117	-52.4		31	8.2
10	9	30,797	-46.0			
7						
5						
4						

PONAPE, CAROLINE IS.
1003 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	39	28.0	24.3	06	3.2
1000	31	48	26.9	23.1	06	3.7
950	31	521	23.5	21.0	07	7.3
900	31	994	20.5	18.1	08	7.7
850	31	1,485	17.7	13.4	09	8.8
800	31	2,004	15.8	8.7	09	9.1
750	31	2,556	12.7	3.2	09	8.7
700	31	3,127	9.5	-1.4	08	8.1
650	31	3,739	6.4	-6.7	07	7.3
600	31	4,392	2.6	-5.7	05	7.1
550	31	5,093	-.7	-10.1	08	7.3
500	31	5,849	-4.7	-17.0	10	7.1
450	31	6,671	-9.2	-22.8	09	8.9
400	31	7,574	-14.5	-28.6	07	9.1
350	31	8,575	-21.2	-35.1	04	8.7
300	31	9,691	-29.9	-42.9	03	8.1
250	31	10,963	-40.0	-52.2	20	4.2
200	31	12,446	-52.5		21	2.4
175	31	13,316	-59.5		23	1.4
150	31	14,242	-67.5		35	1.1
125	30	15,321	-75.5		04	4.7
100	30	16,587	-82.2		07	10.2
80	30	17,841	-77.7		08	9.9
70	30	18,619	-71.6		09	9.4
60	30	[illegible]	-67.1		27	8.9
50	30	20,653	-62.1		27	11.9
40	30	[illegible]	-58.9		28	12.9
30	30	23,866	-55.2		28	10.7
25	27	25,035	-53.5		27	8.8
20	26	26,480	-50.9		27	5.1
15	24	28,366	-47.5		10	2.3
10	14	31,094	-41.9			
7						
5						
4						

PORTLAND, ME
1014 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	20	-2.9	-8.3	29	1.7
1000	31	142	-1.8	-8.6	28	2.2
950	31	541	-2.5	-9.1	27	5.6
900	31	970	-3.3	-9.4	27	7.4
850	31	1,421	-4.6	-12.3	28	8.7
800	31	1,898	-5.7	-16.0	28	10.8
750	31	2,403	-7.5	-17.5	27	13.1
700	31	2,938	-9.8	-20.3	27	16.5
650	31	3,507	-12.6	-23.7	27	18.9
600	31	4,114	-15.9	-26.9	27	21.2
550	31	4,765	-19.8	-31.4	27	23.5
500	31	5,466	-24.5	-34.9	27	25.5
450	31	6,225	-29.8	-39.9	27	27.7
400	31	7,055	-35.6	-44.0	27	30.9
350	31	7,975	-41.7	-48.9	27	32.5
300	31	9,002	-48.3		27	32.0
250	30	10,178	-53.6		27	30.8
200	30	11,605	-56.1		27	28.6
175	30	12,454	-55.5		27	27.6
150	30	13,441	-54.7		27	27.1
125	30	14,605	-55.5		27	24.8
100	30	15,963	-56.6		27	19.8
80	29	17,437	-57.4		28	16.6
70	29	18,280	-58.1		27	14.2
60	29	19,253	-57.3		28	11.8
50	29	20,409	-56.3		28	12.6
40	29	21,828	-55.7		29	9.2
30	29	[illegible]	-55.1		29	8.4
25	28	[illegible]	-55.1		30	8.9
20	26	26,231	-53.9		31	8.4
15	22	[illegible]	-52.1		31	7.2
10	9	30,611	-46.3			
7						
5						
4						

QUILLAYUTE, WA
1010 MB

Standard pressure surface	No. of observations	Height in meters	Temperature °C	Dew point °C	Resultant Wind: Direction in tens of degrees	Resultant Wind: Speed m/s
SFC	31	58	2.7	1.1	16	.7
1000	18	150	3.2	.4	18	.8
950	31	549	1.2	-1.9	22	3.9
900	31	982	-1.3	-4.2	23	5.3
850	31	1,436	-3.7	-8.1	24	6.1
800	31	1,913	-5.7	-11.7	25	7.3
750	31	2,418	-8.0	-16.5	26	7.8
700	31	2,951	-10.6	-20.0	26	9.4
650	31	3,518	-13.6	-22.3	26	11.2
600	31	4,123	-17.3	-24.7	26	12.1
550	31	4,770	-21.3	-29.1	27	13.6
500	31	5,467	-25.8	-32.8	27	14.6
450	31	6,216	-31.3	-37.7	27	16.9
400	30	7,041	-38.8	-42.4	28	18.5
350	30	7,956	-42.9		28	19.5
300	29	8,979	-44.2		28	22.1
250	30	10,162	-53.8		29	23.8
200	30	11,593	-53.7		29	20.7
175	30	12,455	-52.9		29	16.7
150	30	13,450	-52.7		29	14.9
125	30	14,627	-53.0		29	13.0
100	30	16,057	-54.5		30	9.3
80	30	17,487	-54.4		30	6.6
70	30	18,342	-54.1		31	5.5
60	29	19,332	-53.7		32	5.0

RAWINSONDE DATA

Average monthly values

* ST PAUL ISLAND, AK — 1008 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	30	18	-9.6	-13.1	01	1.7
1000	24	109	-10.6	-13.4	33	3.2
950	30	466	-10.9	-12.8	33	1.4
900	30	881	-12.2	-15.5	28	1.8
850	30	1,310	-13.8	-19.3	26	2.8
800	30	1,775	-15.9	-23.6	25	2.5
750	30	2,260	-18.3	-28.0	26	2.9
700	29	2,770	-21.1	-31.4	25	4.2
650	29	3,320	-23.9	-34.3	24	4.7
600	29	3,900	-27.2	-36.5	24	6.2
550	29	4,523	-30.7	-39.7	25	8.6
500	29	5,194	-34.7	-42.9	25	10.1
450	29	5,924	-38.9	-43.7	25	12.0
400	29	6,724	-43.2	-47.5	24	12.9
350	29	7,618	-47.2		24	13.2
300	29	8,629	-49.6		24	15.4
250	29	9,826	-47.7		23	14.9
200	28	11,307	-45.7		24	13.9
175	28	12,198	-45.3		24	13.8
150	28	13,228	-45.7		24	14.2
125	28	14,462	-45.9		24	13.8
100	28	15,926	-46.8		24	12.1
80	28	17,403	-47.4		23	11.4
70	28	18,286	-47.3		23	10.9
60	28	19,307	-47.1		23	9.6
50	28	20,516	-46.5		23	7.9
40	28	21,997	-46.6		23	7.1
30	28	23,910	-46.0		23	6.2
25	27	25,127	-45.1		22	5.9
20	27	26,622	-43.9		20	4.2
15	24	28,565	-41.7		18	5.4
10	19	31,329	-39.7		19	8.7

SALEM, IL — 994 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	174	6.3	3.6	20	1.7
1000	31	203	-.6	-4.8		
950	31	542	7.2	.9	23	6.3
900	31	986	5.5	-2.3	23	9.7
850	31	1,452	3.5	-7.0	26	10.7
800	31	1,942	1.1	-10.7	27	11.3
750	31	2,459	-1.5	-13.3	27	13.2
700	31	3,005	-4.2	-17.6	26	15.3
650	31	3,587	-7.0	-21.2	26	17.8
600	31	4,206	-11.1	-24.9	26	19.9
550	31	4,868	-15.8	-28.4	26	22.3
500	31	5,580	-20.8	-32.9	26	24.6
450	31	6,351	-26.1	-36.8	26	26.2
400	31	7,193	-32.1	-43.1	26	28.5
350	31	8,125	-38.8	-48.7	26	30.3
300	31	9,163	-46.4		26	34.6
250	31	10,354	-53.5		26	37.2
200	31	11,775	-57.1		26	34.9
175	31	12,621	-57.1		26	32.9
150	31	13,597	-57.2		27	30.8
125	31	14,749	-58.2		26	26.3
100	31	16,150	-60.3		27	20.2
80	31	17,539	-60.6		27	15.1
70	31	18,370	-60.3		28	13.3
60	31	19,339	-59.7		28	9.4
50	31	20,485	-58.1		29	6.1
40	31	21,895	-56.8		30	5.8
30	31	23,728	-55.3		33	4.0
25	31	24,891	-54.5		35	4.3
20	31	26,326	-52.6		36	4.7
15	31	28,187	-50.6		33	5.8
10	31	30,793	-45.9		29	13.5

SALEM, OR — 1011 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	74	3.3	.5	19	2.4
1000	28	163	-.3	1.8	20	2.4
950	31	568	3.0	-.3	22	4.3
900	31	1,004	.7	-2.3	23	5.2
850	31	1,462	-1.6	-6.6	25	6.5
800	31	1,943	-3.6	-10.5	26	7.0
750	31	2,451	-6.1	-15.1	27	7.5
700	31	2,988	-8.9	-19.7	27	8.3
650	31	3,559	-12.1	-21.8	28	9.4
600	31	4,167	-15.4	-26.2	28	10.8
550	31	4,819	-19.4	-29.6	29	12.5
500	31	5,522	-23.9	-32.6	29	14.1
450	31	6,283	-29.2	-37.8	30	15.6
400	31	7,114	-35.5	-43.9	30	16.6
350	31	8,033	-42.0	-45.2	30	19.1
300	31	9,058	-49.1		30	21.5
250	31	10,238	-55.1		30	20.0
200	31	11,653	-55.8		29	19.5
175	30	12,505	-54.3		30	17.4
150	30	13,497	-53.6		29	14.3
125	30	14,665	-55.2		30	12.5
100	30	16,089	-56.0		30	8.6
80	28	17,503	-56.6		30	6.8
70	28	18,352	-55.9		32	5.3
60	27	19,334	-55.5		34	4.3
50	27	20,500	-54.5		01	3.8
40	27	21,932	-53.8		04	4.9
30	27	23,785	-53.1		05	7.3
25	27	24,962	-52.3		06	9.5
20	26	26,410	-51.0		06	11.6
15	24	28,285	-50.2		06	12.2
10	9	30,968	-47.4			

SALT LAKE CITY, UT — 870 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	1,288	.1	-5.0	16	1.4
1000						
950						
900						
850	31	1,477	.3	-9.0	19	1.5
800	31	1,962	-2.2	-12.0	24	2.3
750	31	2,471	-5.3	-15.3	28	4.2
700	31	3,009	-8.9	-18.3	29	6.0
650	31	3,580	-12.3	-21.4	29	7.4
600	31	4,187	-15.9	-24.9	29	8.9
550	31	4,838	-19.8	-28.5	29	9.9
500	31	5,539	-24.5	-33.6	28	10.7
450	31	6,298	-30.1	-39.8	29	12.1
400	31	7,125	-36.3	-44.8	29	13.5
350	31	8,033	-42.5		29	15.1
300	31	9,065	-49.2		29	16.1
250	31	10,245	-54.6		29	18.3
200	31	11,672	-54.5		29	17.1
175	31	12,528	-53.8		29	15.8
150	31	13,517	-54.4		27	13.8
125	31	14,682	-56.1		28	13.4
100	31	16,097	-57.2		28	9.8
80	31	17,504	-58.2		28	7.1
70	31	18,346	-57.8		28	5.9
60	30	19,320	-57.5		30	3.4
50	30	20,473	-56.8		33	2.3
40	29	21,892	-55.5		02	3.2
30	29	23,731	-54.5		05	6.2
25	29	24,901	-53.8		05	6.9
20	28	26,340	-52.4		05	9.2
15	28	28,023	-50.2		06	9.9
10	28	30,869	-49.4		06	13.2

SAN DIEGO, CA — 1001 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	124	10.2	6.8	03	.4
1000	24	138	11.3	4.8	03	.7
950	31	559	11.1	.2	30	1.0
900	31	1,008	9.2	-3.9	30	1.9
850	31	1,480	7.2	-9.8	31	3.1
800	31	1,977	4.9	-12.2	29	4.2
750	31	2,500	2.5	-15.4	29	5.2
700	31	3,055	-.7	-17.9	29	6.9
650	31	3,643	-4.1	-21.1	29	8.1
600	31	4,269	-8.4	-25.2	29	9.4
550	31	4,938	-13.0	-29.7	28	10.5
500	31	5,657	-18.5	-34.8	28	11.9
450	31	6,434	-24.8	-38.7	28	13.5
400	31	7,282	-30.2	-43.6	28	15.8
350	31	8,222	-37.5	-49.5	28	18.2
300	31	9,266	-45.2		28	20.2
250	31	10,461	-53.2		28	21.2
200	31	11,879	-58.0		28	22.3
175	31	12,719	-58.5		27	22.6
150	31	13,689	-58.4		27	22.3
125	31	14,832	-60.0		27	18.9
100	31	16,219	-62.7		27	15.1
80	31	17,592	-63.2		27	9.3
70	31	18,416	-62.4		27	6.8
60	31	19,367	-61.0		27	3.6
50	31	20,504	-59.5		02	.4
40	31	21,904	-57.9		06	3.8
30	31	23,731	-55.8		07	7.0
25	31	24,896	-54.4		08	8.5
20	31	26,321	-52.2		07	7.8
15	31	28,185	-50.7		07	8.1
10	30	30,892	-47.1			

SAN JUAN, P. R. — 1017 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	6	20.3	17.9	11	2.8
1000	31	152	21.3	16.9	11	5.4
950	31	596	18.0	14.5	11	8.8
900	31	1,057	14.7	10.3	11	8.9
850	31	1,538	11.5	6.7	10	8.0
800	31	2,043	8.7	2.2	10	7.0
750	31	2,576	7.0	-6.9	10	6.1
700	31	3,142	6.0	-13.5	10	5.0
650	31	3,745	3.0	-17.1	09	3.8
600	31	4,389	-.3	-20.7	07	3.6
550	31	5,079	-5.0	-24.5	04	3.6
500	31	5,821	-10.3	-28.6	36	4.3
450	29	6,624	-15.7	-33.8	34	6.7
400	29	7,502	-22.0	-39.3	33	8.9
350	27	8,475	-28.0	-44.3	32	13.0
300	27	9,561	-35.6	-50.6	36	17.5
250	27	10,809	-43.7		29	23.2
200	27	12,276	-53.7		28	25.3
175	27	13,124	-58.8		29	23.2
150	27	14,080	-64.6		29	19.4
125	26	15,177	-71.0		29	15.3
100	26	16,481	-75.8		30	7.7
80	26	17,763	-76.7		32	3.8
70	26	18,537	-73.9		35	3.2
60	26	19,445	-70.3		36	3.0
50	26	20,545	-64.6		35	2.5
40	26	21,922	-60.1		06	2.9
30	24	23,739	-54.9		08	4.7
25	24	24,912	-52.2		10	5.8
20	24	26,366	-49.4		12	5.1
15	22	28,269	-44.8		13	4.4
10	17	30,992	-40.9		12	7.2
7						

* SAULT STE MARIE, MI — 985 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	221	-6.8	-9.6	08	.7
1000						
950	31	503	-6.7	-9.5	19	.7
900	31	926	-6.8	-10.9	25	3.2
850	31	1,372	-7.2	-12.0	26	6.2
800	31	1,844	-9.1	-14.6	26	8.6
750	31	2,341	-11.0	-19.1	26	11.0
700	31	2,869	-13.5	-21.4	27	13.1
650	31	3,430	-16.2	-24.7	27	15.4
600	31	4,029	-19.4	-28.6	27	17.6
550	31	4,671	-23.3	-32.7	27	20.1
500	31	5,362	-27.8	-37.7	27	22.4
450	29	6,112	-32.8	-38.8	27	24.4
400	29	6,932	-38.1	-43.8	27	28.1
350	27	7,843	-43.8	-46.1	27	31.3
300	27	8,863	-49.1		26	34.0
250	27	10,048	-53.3		26	36.9
200	27	11,478	-54.5		27	33.4
175	27	12,337	-52.6		27	30.0
150	27	13,334	-52.5		27	26.9
125	26	14,508	-53.6		28	23.9
100	26	15,940	-54.5		28	23.2
80	26	17,367	-55.3		28	20.9
70	26	18,217	-55.9		28	19.3
60	26	19,199	-55.8		28	17.6
50	26	20,361	-55.8		29	16.4
40	26	21,784	-55.1		29	15.1
30	24	23,641	-54.4		31	12.9
25	24	24,804	-54.0		31	12.8
20	24	26,238	-53.5		32	12.6
15	24	28,089	-52.1		32	13.5
10	23	30,716	-50.0		31	11.3

SPOKANE, WA — 930 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	720	-1.4	-5.5	19	2.3
1000						
950						
900		984	-.5	-6.5	21	4.1
850	31	1,440	-2.5	-10.2	24	5.5
800	31	1,918	-5.2	-12.3	25	6.7
750	31	2,423	-8.0	-15.5	26	7.0
700	31	2,956	-10.8	-18.7	27	8.6
650	31	3,523	-13.9	-22.7	27	10.7
600	31	4,127	-17.6	-24.9	28	12.2
550	31	4,773	-21.9	-28.5	29	13.8
500	31	5,468	-26.7	-33.4	29	14.8
450	31	6,221	-31.6	-38.0	29	16.1
400	31	7,044	-37.3	-42.9	29	18.3
350	31	7,957	-43.4		30	20.4
300	31	8,977	-49.8		30	22.5
250	31	10,156	-54.6		30	22.8
200	31	11,584	-54.1		29	18.4
175	31	12,445	-52.1		30	15.4
150	31	13,444	-51.9		29	13.9
125	31	14,622	-53.3		29	12.3
100	30	16,055	-54.6		30	8.8
80	29	17,484	-54.3		31	7.2
70	29	18,340	-54.2		31	6.3
60	29	19,330	-53.8		32	5.7
50	29	20,503	-53.1		34	4.9
40	29	21,943	-52.5		36	4.9
30	27	23,809	-52.0		03	6.4
25	24	25,002	-50.8		03	8.0
20	23	26,459	-50.0		04	10.3
15	21	28,345	-48.4		05	13.0
10	12	31,066	-45.7		06	16.9
5		33,469	-42.3			

TAMPA BAY, FL — 1018 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	81	15.7	14.2	09	1.4
1000	31	164	18.2	14.4	12	2.9
950	31	604	16.5	10.3	16	4.2
900	31	1,063	14.3	7.5	18	3.9
850	31	1,544	11.8	2.1	20	3.5
800	31	2,050	10.5	-4.5	23	3.5
750	31	2,585	8.1	-9.3	24	4.4
700	31	3,152	5.1	-13.8	26	5.6
650	31	3,752	1.3	-15.9	26	6.6
600	31	4,391	-3.0	-19.7	27	8.3
550	31	5,075	-7.1	-24.0	28	10.9
500	31	5,811	-12.4	-29.3	28	12.4
450	31	6,607	-18.1	-32.8	28	14.3
400	31	7,476	-24.6	-38.0	28	17.4
350	31	8,437	-32.0	-45.0	28	19.6
300	31	9,504	-40.4	-51.0	28	22.5
250	30	10,723	-49.4		28	27.0
200	30	12,159	-56.7		28	29.8
175	30	13,000	-59.2		28	31.1
150	30	13,960	-62.4		27	29.6
125	30	15,074	-66.7		27	26.7
100	30	16,411	-70.5		27	19.6
80	30	17,731	-71.2		27	13.3
70	31	18,521	-70.7		28	9.6
60	31	19,440	-68.2		29	6.1
50	30	20,547	-63.6		31	2.7
40	30	21,929	-59.7		35	2.9
30	30	23,748	-55.5		03	2.1
25	30	24,916	-53.5		02	2.0
20	29	26,361	-50.8		29	.8
15	25	28,254	-47.3		25	5.1
10	25	30,960	-41.5		25	17.3

TOPEKA, KS — 982 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	268	3.5	-.7	27	.8
1000						
950	31	532	4.1	-2.1	26	3.2
900	31	973	4.5	-3.6	26	7.0
850	31	1,438	4.0	-6.5	27	9.0
800	31	1,930	1.7	-9.9	27	9.9
750	31	2,448	-.4	-13.6	27	10.9
700	31	2,996	-3.3	-17.7	27	12.6
650	31	3,578	-6.6	-20.9	27	14.4
600	31	4,197	-10.9	-24.4	27	15.6
550	31	4,859	-15.9	-28.2	26	16.6
500	31	5,569	-21.0	-34.2	26	18.0
450	29	6,338	-26.0	-39.3	26	20.1
400	29	7,170	-33.1	-45.1	26	23.0
350	27	8,109	-39.0	-48.3	26	26.5
300	27	9,144	-47.2		26	30.1
250	27	10,333	-54.0		26	31.0
200	27	11,753	-57.1		26	31.3
175	27	12,594	-56.5		26	29.8
150	27	13,579	-56.0		26	27.4
125	26	14,735	-57.3		26	22.0
100	26	16,141	-58.9		27	15.7
80	26	17,539	-59.7		27	13.0
70	26	18,373	-59.6		28	9.7
60	26	19,339	-59.4		28	7.7
50	25	20,481	-57.9		30	4.7
40	25	21,893	-56.7		34	3.1
30	25	23,723	-55.6		02	4.2
25	24	24,898	-54.3		04	5.4
20	24	26,329	-52.2		03	5.3
15	22	28,185	-50.7		01	6.0
10	17	30,938	-46.1		34	6.9

TRUK, CAROLINE IS. — 1009 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	2	28.0	24.0	05	4.9
1000	31	84	27.2	23.3	06	5.9
950	31	537	23.6	20.9	07	7.3
900	31	1,009	20.6	17.0	07	6.9
850	31	1,502	17.9	12.9	08	4.9
800	31	2,020	15.6	9.9	09	3.3
750	31	2,567	12.8	6.3	10	2.5
700	31	3,144	10.0	1.0	12	1.5
650	31	3,757	6.7	-1.6	14	.6
600	31	4,411	3.0	-6.1	13	.8
550	31	5,112	-.7	-11.2	12	1.6
500	31	5,868	-4.5	-16.9	10	2.4
450	31	6,691	-9.0	-21.5	08	3.5
400	31	7,593	-14.7	-28.5	08	3.7
350	31	8,595	-21.4	-34.6	08	2.7
300	31	9,710	-29.9	-41.8	09	2.3
250	31	10,982	-40.2	-50.2	13	2.7
200	31	12,463	-52.8		14	3.5
175	31	13,311	-59.8		14	3.7
150	31	14,256	-67.8		11	2.9
125	31	15,331	-76.1		07	3.8
100	31	16,593	-82.8		08	11.3
80	31	17,851	-77.2		09	3.9
70	31	18,629	-71.7		27	3.8
60	30	19,548	-67.2		27	8.9
50	29	20,661	-62.8		27	11.6
40	29	22,050	-59.0		28	12.1
30	28	23,874	-55.3		28	9.3
25	27	25,040	-53.8		27	6.7
20	27	26,483	-50.2		27	3.6
15	18	28,377	-47.3		11	5.9
10						
7						
5						

* TUCSON, AZ — 923 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	789	8.6	-4.7	16	2.2
1000						
950						
900						
850	31	1,476	9.6	-7.9	21	1.8
800	31	1,976	6.3	-10.8	23	3.5
750	31	2,501	2.8	-14.4	25	5.4
700	31	3,056	-.7	-18.7	25	7.2
650	31	3,644	-4.2	-22.2	26	9.7
600	31	4,269	-8.4	-25.8	26	11.7
550	31	4,939	-12.8	-30.0	26	14.4
500	31	5,659	-18.0	-33.2	26	16.7
450	31	6,438	-23.5	-37.7	26	19.6
400	31	7,288	-29.9	-42.2	26	22.4
350	31	8,228	-37.1	-47.6	26	24.3
300	31	9,273	-45.0		26	26.6
250	31	10,482	-53.1		26	29.4
200	31	11,889	-57.3		26	30.4
175	31	12,733	-57.6		26	28.4
150	31	13,706	-58.1		26	26.1
125	31	14,848	-60.9		26	22.3
100	31	16,227	-63.4		26	17.4
80	31	17,595	-63.8		26	11.7
70	30	18,419	-63.1		26	8.2
60	30	19,370	-62.6		26	3.4
50	30	20,499	-60.6		26	.8
40	30	21,894	-58.6		06	3.0
30	27	23,715	-56.1		07	5.6
25	26	24,875	-55.8		07	6.7
20	25	26,304	-53.9		08	8.4
15	19	28,170	-50.4		08	7.5
10	11	30,828	-47.3			

* VANDENBERG AFB, CA — 1006 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	30	100	8.6	5.1	36	1.7
1000	28	149	9.7	3.8	01	2.5
950	30	571	10.1	-1.7	36	4.8
900	30	1,020	8.2	-5.0	36	4.0
850	30	1,490	6.5	-9.1	34	4.2
800	30	1,985	4.6	-13.3	32	4.7
750	30	2,509	2.1	-16.6	32	5.4
700	30	3,062	-1.2	-19.7	32	6.6
650	30	3,649	-4.6	-22.4	31	7.2
600	30	4,274	-8.5	-25.3	31	8.2
550	30	4,943	-13.3	-28.3	31	8.7
500	30	5,663	-18.9	-32.5	30	8.8
450	30	6,446	-24.8	-37.8	30	9.7
400	30	7,282	-31.4	-43.0	30	10.6
350	30	8,216	-38.5	-47.0	30	12.0
300	30	9,256	-46.0		30	13.9
250	30	10,448	-53.6		29	16.0
200	29	11,863	-58.2		29	17.0
175	28	12,702	-57.5		29	16.2
150	27	13,674	-57.4		29	15.5
125	25	14,822	-59.4		28	14.0
100	25	16,212	-61.5		29	10.8
80	23	17,591	-62.3		28	6.7
70	23	18,420	-60.9		29	5.1
60	23	19,378	-60.1		30	3.1
50	23	20,520	-58.7		34	1.8
40	22	21,930	-57.1		05	3.7
30	22	23,757	-55.3		07	6.0
25	22	24,923	-54.5		07	7.9
20	22	26,358	-52.9		07	8.9
15	17	28,224	-50.0		07	9.7
10	17	30,890	-47.0		07	9.6
5	13	33,299	-43.8		05	8.3
	5	35,550	-41.4			

VICTORIA, TX — 1010 MB

| Standard pressure surface mb | No. of observations | Dynamic height meters | Temperature °C | Dew Point °C | Resultant Wind: Direction tens of deg | Resultant Wind: Speed m p s

RAWINSONDE DATA

Average monthly values

Standard pressure surface mb	Number of observations	Height (geopotential)	Temperature °C	Dew point °C	Resultant Wind: Direction (true) deg	Resultant Wind: Speed mps
WAKE ISLAND, WAKE 1019 MB						
SFC	31	4	6.3	-4.2	29	5
1000	31	59	8.2	-3.5	25	1.9
950	31	583	7.8	-.8	28	6.7
900	31	1,128	6.3	-4.2	28	7.4
850	31	1,694	3.9	-8.4	29	8.5
800	31	1,935	1.6	-9.1	27	10.1
750	31	2,523	-1.6	-14.2	27	11.1
700	31	3,052	-3.3	-17.7	27	9.9
650	31	3,635	-8.3	-20.8	27	17.4
600	31	4,197	-12.1	-24.7	27	19.5
550	31	4,912	-14.5	-25.5	27	21.4
500	31	5,617	-19.3	-33.4	27	24.1
450	31	6,413	-24.5	-36.4	27	26.1
400	31	7,252	-30.6	-41.2	27	27.9
350	31	8,138	-37.7	-45.5	27	29.8
300	31	9,100	-45.8		27	32.9
250	31	10,142	-53.9		28	33.7
200	31	11,452	-60.0		28	32.1
175	31	12,251	-59.6		28	29.8
150	31	13,159	-58.7		27	28.4
125	30	14,172	-59.9		28	26.3
100	30	16,179	-61.7		28	19.9
90	29	17,558	-62.0		29	14.3
80	29	18,986	-61.4		28	12.0
70	28	19,341	-61.1		28	10.8
60	28	20,977	-59.7		29	9.1
50	28	21,877	-58.2		29	7.3
40	28	23,699	-55.8		30	7.0
30	28	24,854	-55.7		30	6.8
25	28	25,268	-53.9		29	8.1
20	27	27,187	-51.5		27	12.9
15	17					
10						
7						
5						
4						

Standard pressure surface mb	Number of observations	Height (geopotential)	Temperature °C	Dew Point °C	Resultant Wind: Direction (true) deg	Resultant Wind: Speed mps
WASHINGTON D. C. (DULLES INT. AP) 1 DA MB						
SFC	31	85	3.8	-.5	35	.7
1000	27	166	5.4	-.4	25	.8
950	31	572	6.0	-.3	25	4.7
900	31	1,014	4.7	-4.5	26	7.7
850	31	1,479	3.1	-6.7	26	9.8
800	31	1,969	.4	-9.0	27	11.6
750	31	2,485	-2.7	-14.4	27	13.5
700	31	3,031	-7.8	-17.9	27	15.6
650	31	3,613	-7.0	-21.6	26	18.0
600	31	4,233	-10.8	-24.7	26	20.3
550	31	4,896	-15.2	-28.4	26	21.8
500	31	5,610	-20.1	-32.2	27	24.4
450	31	6,384	-25.1	-36.4	27	26.6
400	31	7,230	-30.8	-40.7	27	29.9
350	31	8,167	-37.7	-44.4	27	32.8
300	31	9,209	-46.6		27	35.6
250	31	10,399	-54.4		27	38.9
200	31	11,808	-59.8		27	37.3
175	31	12,643	-58.7		27	33.3
150	31	13,616	-57.9		28	29.5
125	30	14,764	-58.9		27	26.3
100	29	16,157	-61.0		27	22.7
90	29	17,542	-61.3		28	16.6
80	29	18,971	-61.2		28	13.7
70	29	19,330	-61.4		28	13.7
60	29	20,470	-58.9		29	10.7
50	29	21,873	-58.3		29	9.2
40	28	23,692	-56.8		30	7.2
30	28	24,849	-55.8		30	7.4
25	27	26,282	-54.3		30	6.8
20	24	28,145	-51.5		29	7.6
15	21	30,789	-46.9		28	11.7
10	13	33,145	-41.8		26	22.3
7	10	35,443	-35.1			
5	7	36,992	-31.5			
4						

Standard pressure surface mb	Number of observations	Height (geopotential)	Temperature °C	Dew Point °C	Resultant Wind: Direction (true) deg	Resultant Wind: Speed mps
MARQUESS, SA 1014 MB						
SFC	31	44	24.5	19.7	23	.7
1000	31	138	25.5	11.2	21	1.5
950	31	595	14.8	-.1	22	4.6
900	31	1,051	12.3	-4.4	23	5.5
850	31	1,528	10.0	-7.[illegible]	23	4.7
800	31	2,031	8.[illegible]	-3.4	25	8.4
750	31	2,561	5.8	-8.2	28	8.8
700	31	3,123	2.8	-3.5	29	9.8
650	31	3,719	-.7	-16.1	28	11.9
600	31	4,353	-4.9	-19.4	28	13.5
550	31	5,032	-9.3	-23.4	28	15.8
500	31	5,762	-14.5	-27.1	27	18.0
450	31	6,552	-20.2	-32.7	27	19.4
400	31	7,413	-26.6	-38.8	27	22.2
350	31	8,367	-33.7	-44.4	27	24.2
300	31	9,427	-42.0		27	26.6
250	31	10,636	-51.6		27	30.2
200	31	12,058	-58.5		27	35.4
175	31	12,895	-59.5		27	34.5
150	31	13,856	-61.3		27	33.9
125	31	14,[illegible]90	-64.5		27	29.7
100	30	16,[illegible]28	-58.2		27	23.7
90	28	17,667	-69.2		27	16.0
80	31	18,467	-67.8		27	10.9
70	31	19,399	-65.4		28	7.8
60	30	20,517	-62.7		30	4.1
50	30	21,905	-59.2		35	2.2
40	30	23,724	-55.5		35	2.5
30	30	24,890	-54.0		33	4.1
25	28	26,330	-51.4		31	2.1
20	26	28,214	-47.7		26	3.9
15	25	30,934	-41.6		25	17.8
10						
7						
5						
4						

Standard pressure surface mb	Number of observations	Height (geopotential)	Temperature °C	Dew Point °C	Resultant Wind: Direction (true) deg	Resultant Wind: Speed mps
MINNEAPOLIS, MN 859 MB						
SFC	31	1,342	-2.9	-11.7	31	.8
1000	31	1,479	.7	-8.7	23	.7
950	31	1,965	-1.0	-11.[illegible]	26	3.6
900	31	2,477	-4.4	-13.6	27	5.1
850	31	3,016	-7.8	-16.[illegible]	26	5.8
800	31	3,590	-10.9	-20.[illegible]	29	7.7
750	31	4,201	-14.5	-23.[illegible]	30	9.[illegible]
700	31	4,855	-18.7	-27.5	30	10.8
650	31	5,559	-23.3	-32.[illegible]	30	12.5
600	31	6,322	-29.0	-37.[illegible]	30	13.5
550	31	7,154	-34.9	-43.[illegible]	31	14.8
500	31	8,076	-41.2	-45.4	31	16.6
450	31	9,106	-47.8		31	18.9
400	31	10,292	-54.4		31	19.9
350	31	11,710	-56.5		30	18.8
300	31	12,560	-55.5		29	15.1
250	31	13,547	-55.3		29	13.0
200	30	14,709	-56.3		29	11.0
175	30	15,[illegible]28	-58.2		29	7.9
150	29	16,174	-57.9		31	3.8
125	28	16,349	-56.7		33	2.4
100	28	20,507	-55.8		33	2.7
90	27	21,935	-54.5		30	3.8
80	25	23,794	-53.3		27	6.8
70	24	24,969	-52.8		27	8.5
60	23	26,416	-51.6		27	9.0
50	18	28,300	-49.5		27	11.0
40						
30	5	31,011	-47.3			
25						
20						
15						
10						
7						
5						
4						

Standard pressure surface mb	Number of observations	Height (geopotential)	Temperature °C	Dew Point °C	Resultant Wind: Direction (true) deg	Resultant Wind: Speed mps
[illegible] 949 MB						
SFC	31	[illegible]	-.1	-8.7	31	1.1
1000	31	1,516	-.0	-11.2	34	.7
950	31	[illegible]72	3.4	-10.0	25	[illegible]
900	31	[illegible]93	.2	-13.0	25	[illegible]
850	31	3,042	-3.5	-15.[illegible]	25	[illegible]
800	31	3,624	-6.8	-19.8	25	[illegible]
750	31	4,240	-11.2	-23.2	26	[illegible]
700	30	4,902	-16.0	-27.9	27	[illegible]
650	30	5,613	-20.9	-33.3	27	[illegible]
600	29	6,383	-26.5	-37.6	27	[illegible]
550	29	7,223	-32.7	-43.7	28	[illegible]
500	29	[illegible]157	-45.8		27	[illegible]
450	28	10,385	-52.8		27	[illegible]
400	27	11,807	-55.5		27	[illegible]
350	27	12,657	-55.6		27	[illegible]
300	26	13,641	-56.8		28	[illegible]
250	26	14,790	-59.4		28	[illegible]
200	25	16,182	-62.0		28	[illegible]
175	23	17,570	-61.2		28	[illegible]
150	23	18,398	-61.8		28	[illegible]
125	23	19,355	-60.7		28	[illegible]
100	23	20,493	-59.5		28	[illegible]
90	23	21,896	-58.7		28	[illegible]
80	23	23,717	-56.0		28	[illegible]
70	22	24,883	-55.0		28	[illegible]
60	17	26,321	-53.2		28	[illegible]
50	12	28,196	-49.8		28	[illegible]
40	5	30,886	-47.3			
30						
25						
20						
15						
10						
7						
5						
4						

Standard pressure surface mb	Number of observations	Height (geopotential)	Temperature °C	Dew Point °C	Resultant Wind: Direction (true) deg	Resultant Wind: Speed mps
YAKUTAT, AK 1005 MB						
SFC	31	2	-1.7	-4.7	10	1.8
1000	31	148	-.2	-4.7	11	1.8
950	31	465	-1.0	-5.6	14	3.7
900	31	893	-4.4	-7.2	16	4.2
850	31	1,341	-7.3	-10.3	18	4.4
800	31	1,811	-10.1	-14.9	18	4.3
750	31	2,306	-12.8	-18.7	20	4.1
700	31	2,830	-15.8	-23.0	22	4.4
650	31	3,385	-19.2	-25.5	23	5.0
600	31	3,976	-22.8	-29.0	23	5.4
550	31	4,609	-26.7	-33.0	24	7.4
500	31	5,291	-31.1	-38.5	24	8.4
450	30	6,026	-36.1	-41.8	26	7.9
400	30	6,834	-41.9	-46.8	24	9.2
350	29	7,720	-47.0		24	6.7
300	29	8,730	-50.6		27	12.5
250	29	9,914	-51.0		28	13.2
200	29	11,375	-48.4		27	13.5
175	29	12,256	-47.7		27	13.4
150	29	13,274	-47.4		27	13.3
125	28	14,478	-47.7		28	12.6
100	28	15,948	-49.0		28	12.1
90	28	17,413	-48.6		28	10.9
80	28	18,292	-48.6		29	10.2
70	28	19,306	-48.5		28	9.7
60	28	20,509	-47.7		29	10.2
50	28	21,976	-47.7		30	9.0
40	28	23,871	-47.1		31	9.9
30	28	25,084	-45.9		31	9.6
25	28	26,572	-45.1		32	8.4
20	28	28,546	-41.4		34	8.2
15	19	30,286	-40.4			
10	11	31,286	-40.4			

Standard pressure surface mb	Number of observations	Height (geopotential)	Temperature °C	Dew Point °C	Resultant Wind: Direction (true) deg	Resultant Wind: Speed mps
YAP, CAROLINE IS. 1008 MB						
SFC	31	14	27.3	23.2	07	4.6
1000	31	79	26.4	22.9	06	5.9
950	31	465	23.0	20.2	06	9.4
900	31	1,002	20.[illegible]	17.1	07	10.1
850	31	1,494	17.2	13.4	07	9.3
800	31	2,011	15.0	7.4	07	8.6
750	31	2,556	12.6	2.7	07	7.9
700	31	3,133	10.0	-2.6	07	6.4
650	31	3,746	6.8	-5.9	07	5.9
600	31	4,400	3.4	-10.4	07	6.1
550	31	5,101	-.2	-14.8	07	6.3
500	31	5,858	-4.4	-19.9	07	6.1
450	31	6,681	-9.3	-24.3	08	7.4
400	31	7,582	-15.1	-29.8	08	7.4
350	31	8,582	-21.9	-35.6	08	6.7
300	31	9,694	-30.4	-43.6	09	5.9
250	31	10,963	-40.8	-50.3	10	5.0
200	31	12,441	-53.[illegible]		12	5.8
175	31	13,288	-60.0		12	6.6
150	31	14,233	-67.8		11	7.7
125	31	15,307	-76.0		09	9.5
100	31	16,571	-82.3		09	12.6
90	31	17,830	-77.5		09	5.1
80	31	18,606	-72.4		32	1.8
70	31	19,524	-67.6		28	5.3
60	31	20,635	-62.8		27	7.6
50	30	22,023	-59.0		27	9.5
40	30	23,847	-55.1		27	7.8
30	28	25,019	-52.8		27	4.5
25	27	26,471	-49.7		22	.3
20	22	28,356	-46.6		11	6.4
15	13	31,071	-40.6			
10						
7						
5						
4						

Standard pressure surface mb	Number of observations	Height (geopotential)	Temperature °C	Dew Point °C	Resultant Wind: Direction (true) deg	Resultant Wind: Speed mps
YUCCA FLAT, [illegible] 879 MB						
SFC	31	1,198	-.3	-7.6	30	1.1
1000						
950						
900						
850	31	1,472	5.0	-10.6	32	1.5
800	31	1,964	2.0	-12.7	26	1.0
750	31	2,482	-1.0	-14.8	28	2.3
700	31	3,029	-4.1	-17.6	28	4.2
650	31	3,610	-7.8	-20.5	29	5.9
600	31	4,228	-11.6	-26.4	29	8.8
550	31	4,889	-15.9	-30.8	30	10.5
500	31	5,600	-21.0	-35.0	30	11.5
450	31	6,370	-26.6	-39.0	30	12.4
400	31	7,209	-33.1	-44.3	29	13.1
350	31	8,137	-40.0	-49.4	29	15.0
300	31	9,171	-47.4		30	16.8
250	31	10,359	-53.7		29	19.6
200	31	11,779	-57.2		29	18.6
175	31	12,624	-56.5		28	18.3
150	31	13,603	-56.5		28	16.7
125	31	14,758	-57.9		28	13.8
100	31	16,160	-59.9		27	10.2
90	31	17,550	-60.7		28	7.9
80	31	18,382	-59.4		28	5.5
70	30	19,349	-58.7		29	3.1
60	29	20,497	-57.5		02	1.8
50	28	21,907	-56.7		06	3.7
40	27	23,741	-54.7		06	6.3
30	24	24,913	-54.2		07	8.5
25	23	26,347	-52.6		07	9.3
20	17	28,204	-51.3		07	10.8
15						
10						
7						
5						
4						

SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun.

MARCH 1976

ALBUQUERQUE, NM

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass 4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
2	.	.	.	(1.30)	.	--	--	--	(.85)
3	.99	1.10	1.23	1.39	1.41	--	--	--	--
	--	--	--	(1.39)	.	(1.28)	(1.15)	(1.01)	(.89)
	.95	1.04	1.16	1.35	1.47	1.35	1.20	1.08	.94
	.96		1.19	.	--	--	--	.	.
7	(.76)	--	.	(1.21)	1.36	--	--	--	--
8	--	--	--	.	--	1.25	----	----	--
	--	--	(1.01)	--	1.40	1.29	1.12	.95	.84
	--	--	.	.	--	(1.30)	(1.11)	--	(.85)
13	.84	--	1.09	1.28	1.49	1.33	1.18	1.05	.97
	1.02	1.11	1.23	1.36	--	--	--	--	--
	.85	.97	1.09	1.27	1.49	1.28	1.10	.96	.86
	1.01	1.12	1.23	1.36	1.53	--	----	--	--
17	--	--	1.17	.	--	--	--	--	--
	1.00	1.11	1.23	1.36	1.50	1.27	(1.15)	1.00	.92
	.	--	--	----	.	.	(1.11)	.94	.87
	1.01	1.10	1.20	1.34	1.45	1.31	1.17	1.04	--
	--	--	--	--	1.47	1.34	1.19	1.06	.97
	1.04	--	--	1.38	1.52	--	1.22	1.11	1.00
23	--	.91	1.08	1.25	.	.	--	--	--
	.93	1.01	1.15	1.30	--	-	1.01	--	--
	.96	1.02	1.14	--	1.43	.	--	--	--
26	.88	.99	1.09	1.25	1.45	1.26	.98	.86	.74
	.91	1.00	--	--	(1.41)	----	--	--	--
	--	1.02	(1.13)	(1.27)	--	--	--	--	.
	(.82)	--	.	--	(1.44)	1.37	1.20	1.08	.95
	1.00	1.12	1.23	1.35	1.52	1.35	1.20	1.04	.94
Aver-	--	1.04	1.17	1.33	1.47	1.31	1.14	1.01	.91

BLUE HILL OBSERVATORY, MA

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass 4.89	3.92	2.91	1.96	*	1.96	2.91	3.92	4.89

NO DATA RECEIVED

MADISON, WI

	Air mass 4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
	--	--	--	--	--	--	--	--	--
	M .85	M .97	M 1.11	M 1.25	--	--	--	--	--
	--	--	--	--	S 1.24	--	--	--	--
13	--	--	--	S 1.28	S 1.28	S 1.42	S 1.31	--	--
15	--	--	--	--	--	--	--	--	--
	M .90	M .97	M 1.11	--	--	--	--	--	--
	--	--	--	--	S 1.17	--	--	--	--
21	--	--	--	--	--	--	--	--	--
22	M .72	M .84	M .99	M 1.16	M 1.33	--	--	--	--
Aver-	.82	--	1.07	1.25	1.38	1.22	1.09	.89	.76

MADISON, WI

	Air mass 4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
	--	--	--	--	--	--	--	--	--
	M .85	M .97	M 1.11	M 1.25	--	--	--	--	--
	--	--	--	--	S 1.24	--	--	--	--
13	--	--	S .96	S 1.08

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
[illegible]																																
ALBUQUERQUE NM	141	147	416	462	474	517	442	467	486	466	457	519	527	467	521	518	472	539	[illegible]	[illegible]	[illegible]	578	447	--	[illegible]	508	472	476	515	[illegible]	[illegible]	484
AL MADERA AZ	[illegible]	249	395	[illegible]	---	364	[illegible]	[illegible]	150	334	77	438	371	446	335	---	345	443	477	[illegible]	384	442*	442	441	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	377
ARIZONA MI	345	470	[illegible]	[illegible]	[illegible]	470	34[illegible]	[illegible]	477	365	167	423	127	389	419	417	222	540	367	[illegible]	1[illegible]	494	387	--	[illegible]	41[illegible]	458	[illegible]	[illegible]	[illegible]	[illegible]	384
EL CENTRO CA	384	[illegible]	40[illegible]	4[illegible]	512	525	[illegible]18	4[illegible]	[illegible]17	5[illegible]	53[illegible]	552	534	544	544	45[illegible]	479	[illegible]	406	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EL PASO TX	407	475	[illegible]	[illegible]	479	442	[illegible]18	527	543	325	549	554	541	559	549	562	469	576	05	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]																																
ELY NV	---	362	346	480	487	[illegible]18	489	484	494	475	287	513	496	488	499	[illegible]	343	---	422	[illegible]	[illegible]	471	469	413	443	481	544	[illegible]	[illegible]	---	[illegible]	449
FRESNO CA	253	17*	197*	364	459	425	449	289	424	359	317	484	474	[illegible]1	452	468	402	334	[illegible]	[illegible]	[illegible]	471	[illegible]41	[illegible]	541	511	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]8
FRESNO NEV	129	19	48	---	---	248	167	326	247	384	281	167	81	280	471	167	[illegible]	[illegible]	[illegible]	[illegible]	-14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	276
GRAND JUNCTION CO	327	293	184	278	458	516	392	496	498	[illegible]36	193	452	535	479	450	470	472	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]8
JOHNSTON ISLAND PAC	424	413	258	504	489	555	569	545	485	239	484	[illegible]7	454	319	610	606	624	564	[illegible]	[illegible]	[illegible]	61	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]8
[illegible]																																
LAS VEGAS NV	296	464	36[illegible]	482	463	534	467	414	453	412	487	[illegible]7	488	449	514	534	366	481	[illegible]	[illegible]	469	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MADISON WI	21	28	0	33	---	356	389	334	180	298	124	38	464	469	353	481	429	[illegible]	[illegible]	480	494	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIAMI FL	426	438	468	484	474	522	411	544	393	442	[illegible]4[illegible]	[illegible]	551	[illegible]47	[illegible]	[illegible]	438	[illegible]	[illegible]14	[illegible]	[illegible]1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NASHVILLE TN	375	---	172	423	[illegible]	449	476	[illegible]	64	458	[illegible]	66	325	[illegible]	410	[illegible]	472	[illegible]	[illegible]	[illegible]	385	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
OAK RIDGE TN	384	390	258	362	95	481	475	86	[illegible]7	442	[illegible]1	[illegible]	454	367	[illegible]33	151	[illegible]	486	[illegible]	[illegible]	[illegible]3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]																																
PHOENIX AZ	[illegible]	448	143	490	[illegible]	494	482	445	490	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	520	434	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	471
SEATTLE TACOMA WA	[illegible]	[illegible]	31[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	287	79	[illegible]	[illegible]	[illegible]	226	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	73	65	[illegible]	---	[illegible]	467	[illegible]	51	361	[illegible]	76	[illegible]	[illegible]	[illegible]	33	[illegible]	[illegible]	32	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TALLAHASSEE FL	[illegible]	[illegible]	38*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NET RADIATION

Net radiation in langleys per day (8 a.m. to 8 a.m.) at Palmer, Alaska. MARCH 1962

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .														NO DATA RECEIVED																		

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals and monthly average (< 3000 Å) at Byrd Base

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. .																																

NO DATA RECEIVED

TOTAL OZONE DATA

These provisional ozone data are obtained from measurements made with a Dobson ozone Spectrophotometer, and are applicable approximately to local apparent noon. The data are presented in the code form defined in the August 1962 WMO circular entitled "PUBLICATION OF DATA FOR METEOROLOGICAL RESEARCH, WORLD OZONE DATA".

Units Milli atmo-cms.

Station	Day of month																															Mean O3
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

NO DATA RECEIVED

REFERENCE NOTES

OBSERVED EXTREMES OF TEMPERATURE: [illegible] of observations).

+ And also on an earlier date or dates.
b Water equivalent of snowfall wholly or partly estimated [illegible] fall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis [illegible] precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile data can be evaluated.

B Number of days maximum 21.1°C. or above for Alaskan Stations.
Y Peak Gust.
+ And also on an earlier date or dates.
U Indicates Urban site.
R Indicates Rural site.
Ø Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publication.

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters
°F = $\frac{9}{5}$ x °C + 32
1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

° Includes crop damage.
C Crop damage.
* No occurrence of storms or unusual weather phenomena reported.
@ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
Ø For breakdown of "All Others," and for detailed listing of other storms, see the Environmental Data Service, NOAA, monthly publication STORM DATA
‡ No Storm Data Report received for this State.
<> Report Incomplete.
† Storm damages are placed in categories varying from 1 to 9 as follows:
1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5 Million
7 $5 Million to $50 Million
8 $50 Million to $500 Million
9 $500 Million to $5 Billion.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1/ Flooding continued at the end of the month.
NA Not available.

FLOOD STAGE DATA:

Highest Stage Observed
1/ Continued at end of month
Highest Stage of Record
E Estimated
P Provisional (Flood Stage)
I Unknown

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
+ Observations for these stations are scheduled at 0000 G.C.T.
† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

REFERENCE NOTES

SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

()	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
*	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeterminable
BD	Blowing Dust	F	Fog	I	Intense Haze-indeterminable		
BS	Blowing Sand	GF	Ground Fog	K	Smoke	N	Sand
D	Dust	H	Haze	KI	Intense Smoke	S	Slight Haze-indeterminable
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		

SOLAR RADIATION TOTALS: Langley is the unit used to denote one gram calorie per square centimeter.

* Values with an asterisk are interpolated.
Data are only for those stations equipped with Eppley Model II sensors.

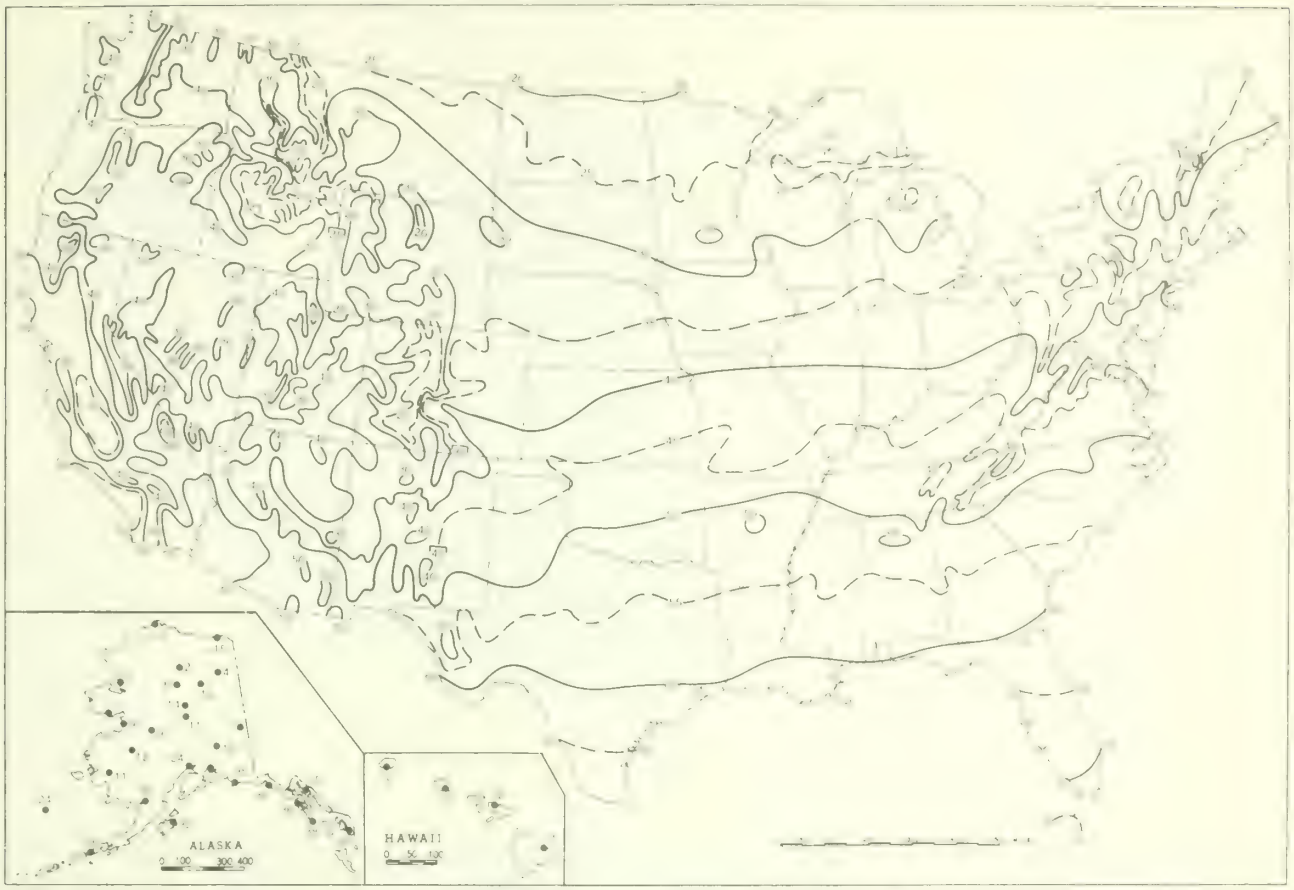
NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded Ω Ω Ω) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code $_{\lambda}$S designates the type of measurement made.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), March.



B. Temperature Departure from 30 - Year Mean (°F 1941-70), March 1976

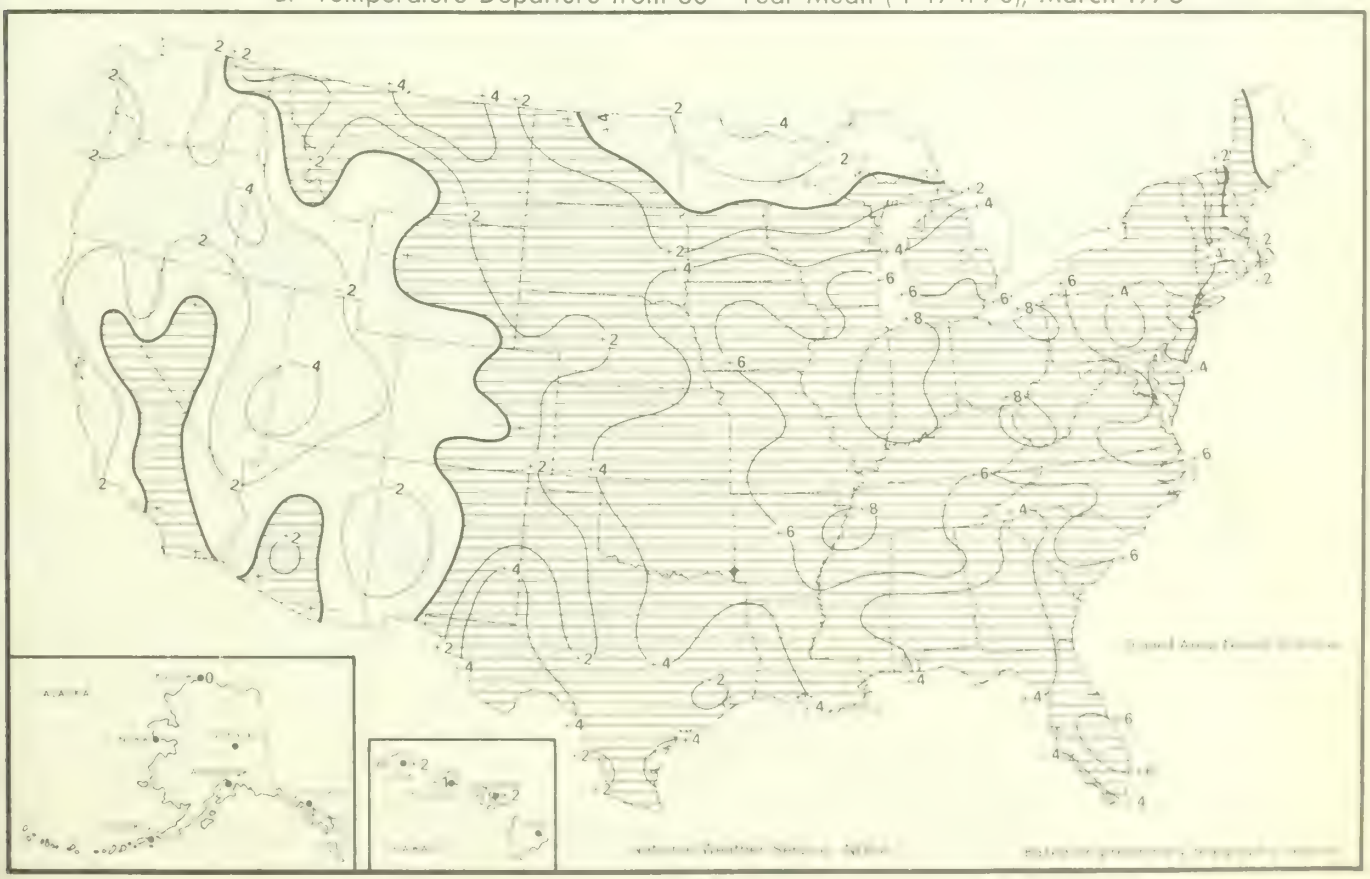
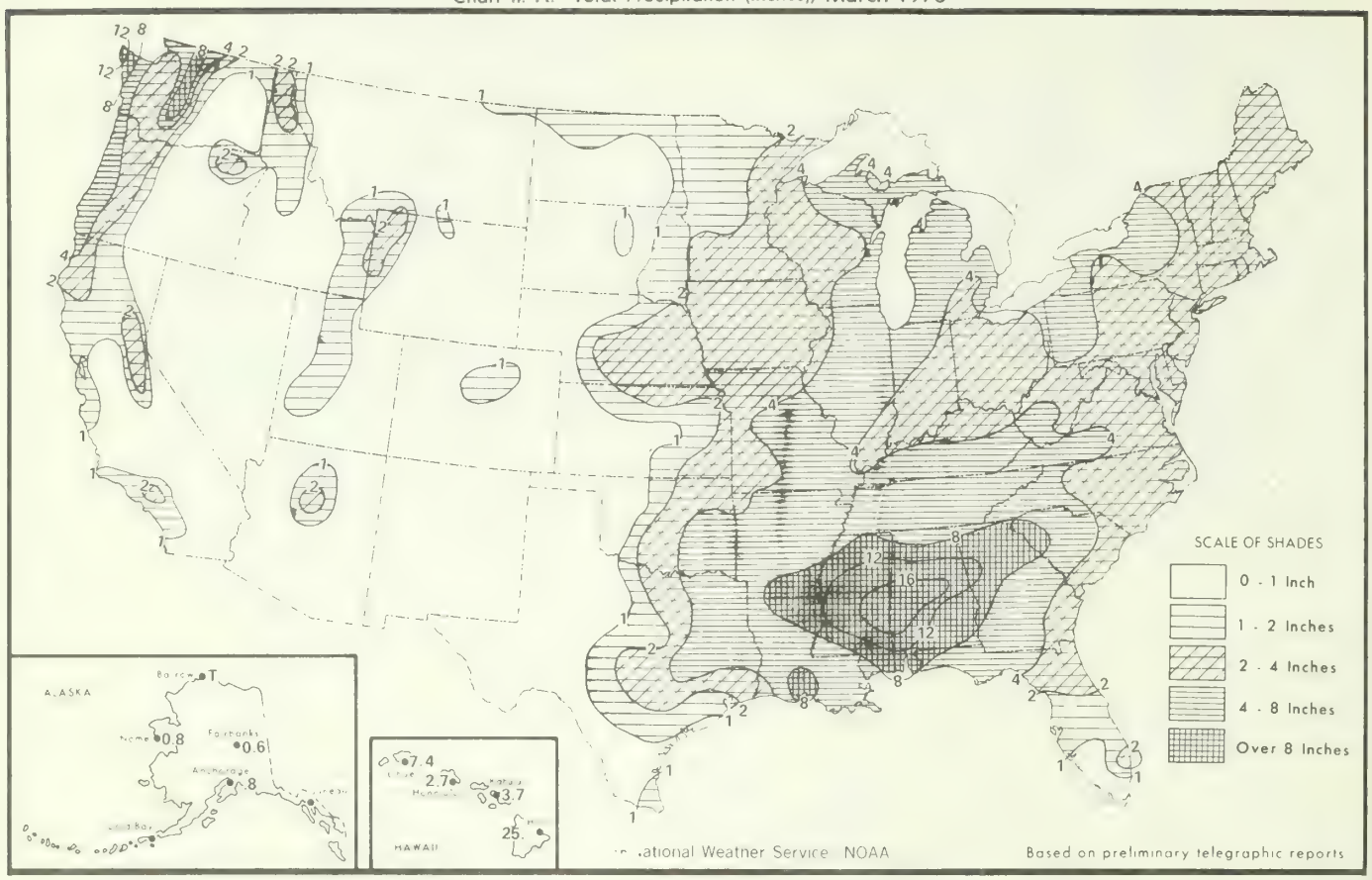
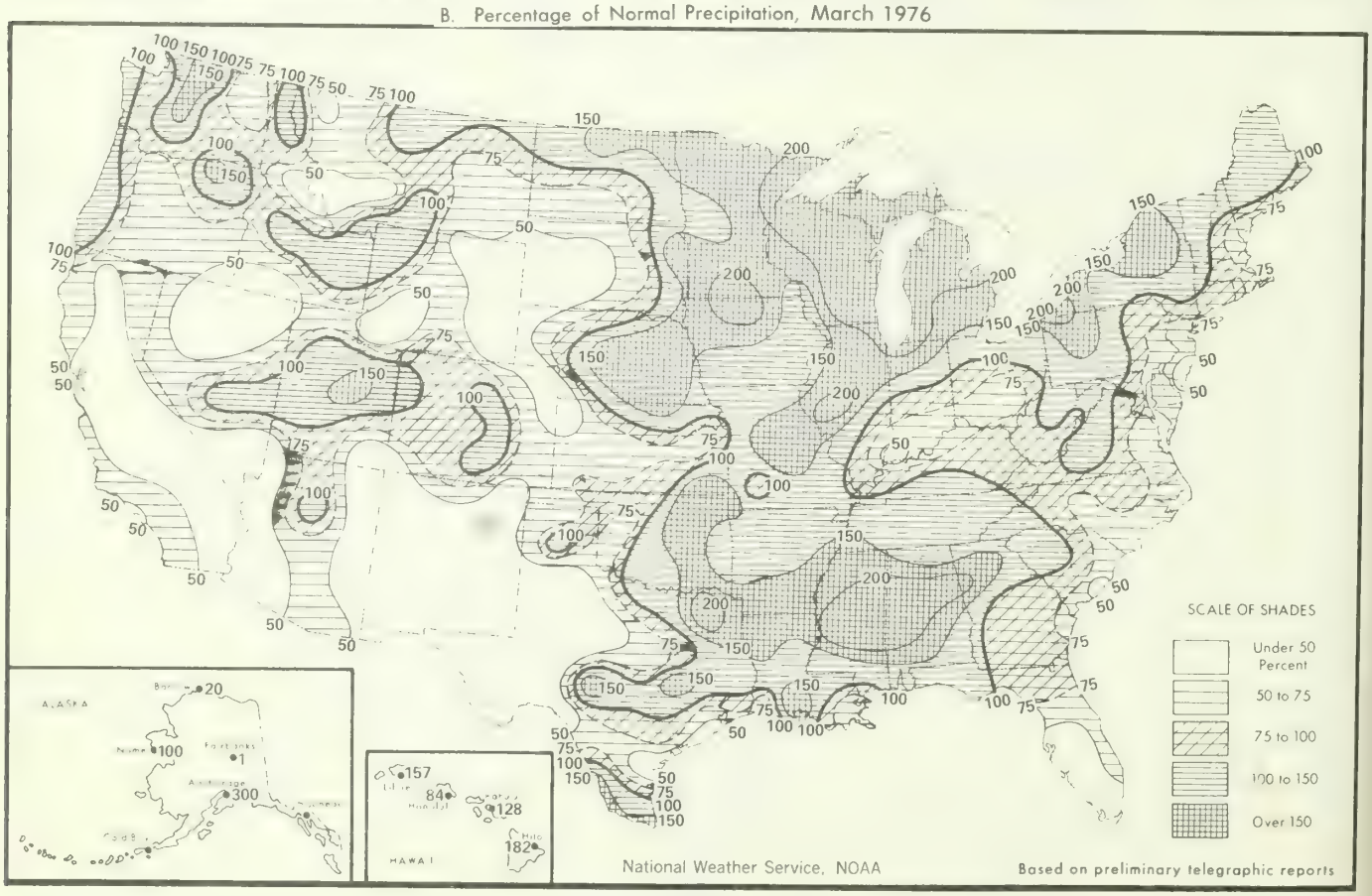
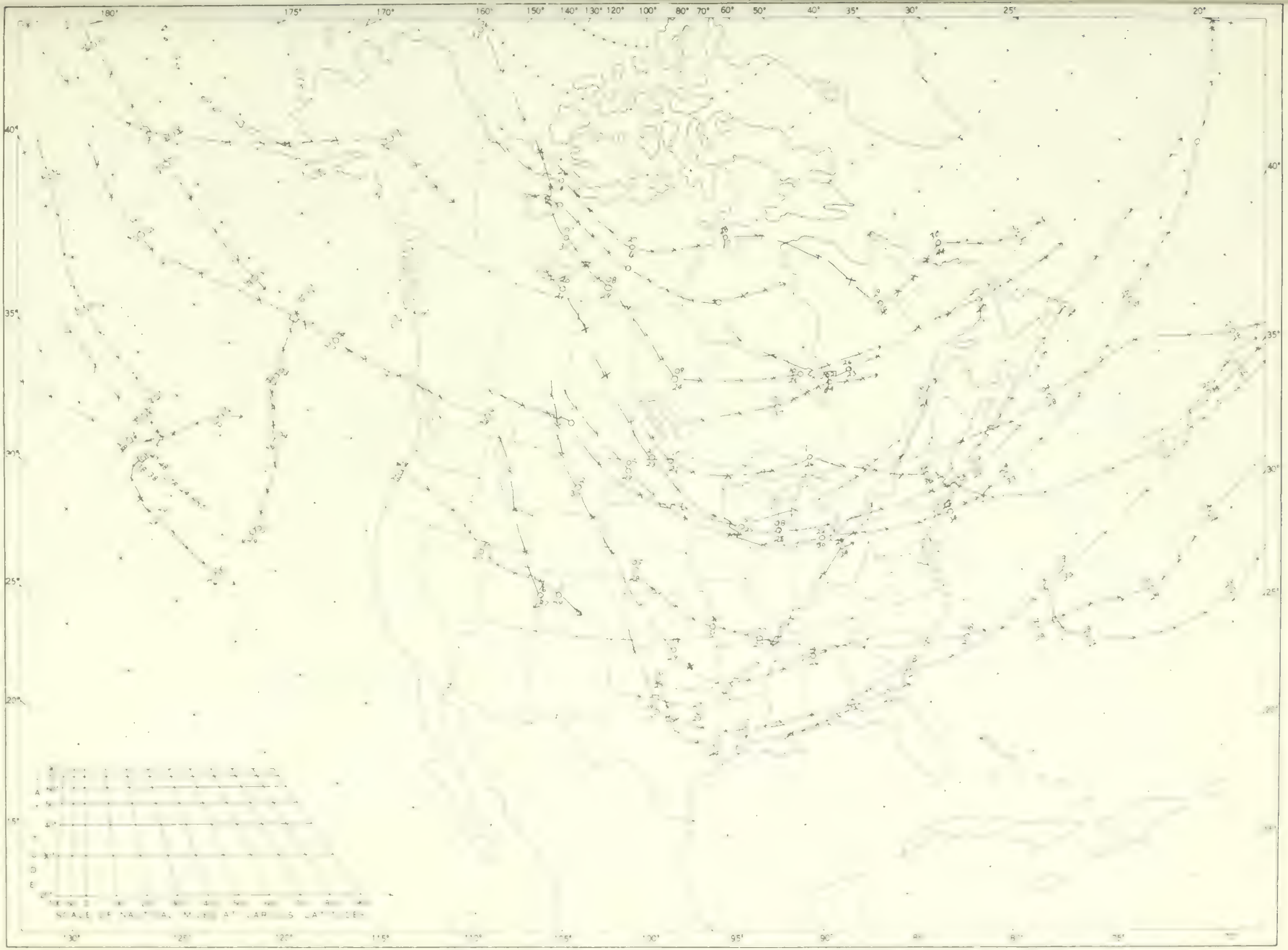


Chart II. A. Total Precipitation (Inches), March 1976



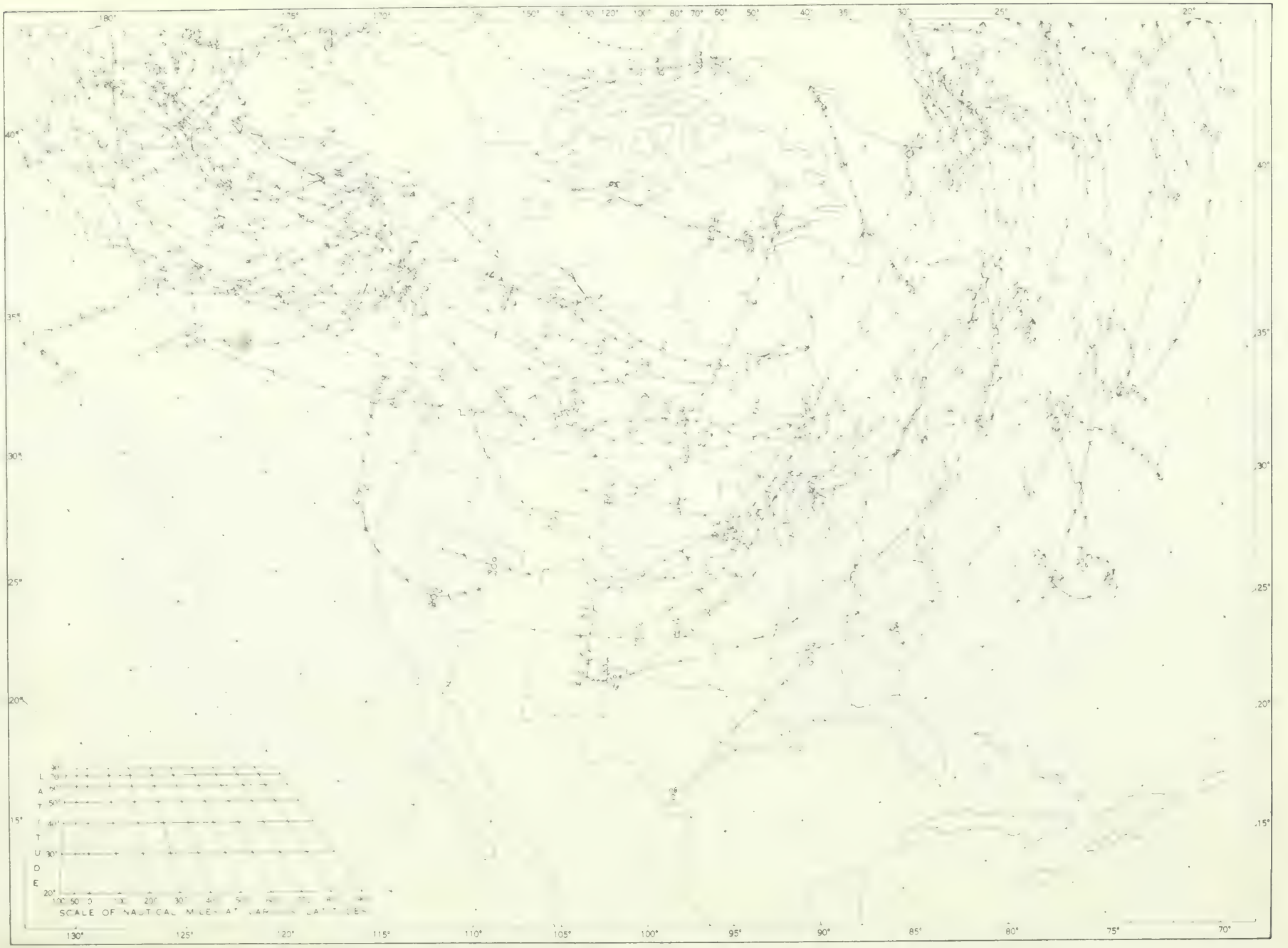
B. Percentage of Normal Precipitation, March 1976





Circle indicates position of center at 2:00 a.m. E.S.T. Figure above circle indicates date; figure below, pressure to nearest millibar. X's indicate intervening 6 hourly positions. Squares indicate position of stationary center for period shown. Dashed line at track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IV Tracks of Centers of Cyclones at Sea Level, March 1976



Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar
X's indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

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APRIL 1976 VOLUME 27 NUMBER 4

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

NOV 10 1976

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Thomas D. Potter

DIRECTOR
NATIONAL CLIMATIC CENTER

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

APRIL 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

HIGHLIGHTS: Significant departures from normal temperatures during April were confined mostly to the upper Midwest and upper Plains and the Northeast where averages were up to 8° above normal. Most other areas were near or slightly below normal. California was relatively cool with average temperatures ranging 2 to 4° below normal. Precipitation favored the western Great Plains where it was badly needed. The previously very dry area of western Kansas, Oklahoma, and Texas received well over 100% of the normal rainfall. The moisture was very beneficial to winter wheat and provided needed soil moisture for spring planting. Subsoil moisture was also replenished in the western Corn Belt. Parts of the mid-South and much of the East Coast had a very dry April. The seriously dry situation in California was only partially relieved by slightly above normal rain in the northwest and south.

Early in the month a storm developing in the lower Mississippi Valley produced numerous thunderstorms and tornadoes in the mid-South and copious precipitation as it moved northeastward through the Appalachians and off the coast of New England. Temperatures were running above normal before the storm developed but dropped to below normal readings behind the storm as it moved through New England.

During the next week a high pressure system was centered in the Ohio Valley and kept eastern temperatures as much as 7° below normal and precipitation at a minimum. Most of the area west of the Mississippi River recorded above normal temperatures--up to 9° above in the central Plains and 15° above normal in Montana. California was the temperature exception in the West---the Valley averaged 6° below normal. Most of the week's rainfall occurred in Florida, the Great Plains and near the West Coast. The rain in California was most welcome although most of it was confined to the northwest coastal area. Rain in western Nebraska helped to replenish the badly depleted soil moisture.

The midweek of the month started cold in the East and then began a record-breaking hot spell that accelerated the beginning of spring growth. All areas east of the Continental Divide, except Florida, were warmer than normal and many record breaking high temperatures were recorded. The Great Lakes area was the warmest relative to normal as temperatures averaged up to 15° above normal. Alpena, MI had a record high of 86°. West of the Divide the temperatures were in sharp contrast to the East. Along the inter-mountain plateau temperatures ranged 6 to 9° below normal. Precipitation was sparse in the East except for New York where substantial rain fell. Most of the period's rainfall was in the Plains. Much of the area recorded over 2 inches of rain, which came mostly from thunderstorm activity. Although some damage from hail and tornadoes was noted, the area generally benefited from the additional moisture.

The hot spell in the East ended on the 23d as thunderstorms preceded a cooler air mass over the area and by the end of the month most of the Nation was again below normal.

During the last week of the month temperatures in a band from west Kansas to West Virginia averaged 9 to 12° below normal. Thunderstorms prevailed from the southern Plains through the Great Lakes and by the end of the month were moving through the East where much needed rain was added to the very dry topsoil. Some stations along the mid-Atlantic Coast reported little or no rain all month.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

APRIL 1976

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In		In
[illegible]	Vernon	91	29	3 Stations	28	10	Louisville	4.10	Marion Junction 2 NE	32
[illegible]	Annette WSO AP	82	29	Franklin Bluffs	-35	2	Mac Leod Harbor	24.98	4 Stations	00
[illegible]	Gila Bend	102	30	Sunrise Mountain	3	17	Junipine	3.94	2 Stations	06
Arkansas	De Queen	89	23	2 Stations	26	10	Siloam Springs	8.21	Eudora	67
[illegible]	Palm Springs	104	30	White Mountain 1	6	15	Gibson Hwy Mntnce Sta	7.90	2 Stations	00
[illegible]	Lamar	88	23	Twin Lakes Reservoir	-16	18	Campo 7 S	3.32	Colorado Natl Monument	92
Connecticut	Hartford WSO AP	91	19	2 Stations	11	13	West Hartford	4.91	Groton	2.14
Delaware	2 Stations	93	18	Wilmgton Porter Reservoir	23	12	Newark University Farm	2.11	Georgetown 5 SW	96
Florida	Myakka River State Park	96	29	3 Stations	36	3	Key West WSO AP	1.79	Apalachicola WSO AP	35
[illegible]	Cuthbert	94	23	2 Stations	25	16	Savannah WSO AP	3.62	Helen 1 ESE	17
Hawaii	3 Stations	88	26	Mauna Loa Slope Obs, HI	25	3	Hilo Country Club 86.6, HI	33.02	3 Stations	00
Idaho	North Star Ranch	80	6	Island Park Dam	-5	3	Dworshak Fish Hatchery	3.80	Middle Fork Lodge	27
Illinois	2 Stations	88	23	Kewanee 1 E	18	12	Lacon 2 E	6.36	Sidell	18
Indiana	Madison Sewage Plant	90	26	Auburn 2 SSE	17	8	South Bend WSO AP	5.20	Indianapolis SE Side	77
Iowa	Logan	89	24	Grinnell 3 SW	20	12	Algona 2 NNE	8.23	Emmetsburg	93
Kansas	Aetna 2 S	92	2	2 Stations	20	14	Bucklin 4 SE	9.50	Bird City 11 S	71
Kentucky	Jackson	95	21	Blaine	18	13	Paducah FAA AP	2.07	Allen	26
Louisiana	3 Stations	89	25	Converse	33	1	Keithville	4.43	Mermentau	18
Maine	Saco	90	18	Rangeley	-2	12	Jonesboro	10 6.66	Jackman	1.73
Maryland	2 Stations	96	19	McHenry 2 NW	15	12	Frederick 3 E	3.13	Waldorf Police Barracks	55
Massachusetts	Chester 2	100	19	2 Stations	11	12	Chester 2	4.83	Hyannis	1.03
Michigan	Atlanta 6 NE	90	16	2 Stations	8	12	Flint WSO AP	3.50	Harrisville 6 N	34
Minnesota	Browns Valley	87	14	Tower 3 S	9	4	Spring Grove 1 NW	3.88	Cook 18 W	09
Mississippi	4 Stations	89	24	2 Stations	29	10	Corinth 5 WSW	4.58	Belzoni	25
Missouri	4 Stations	89	24	Berryman 6 NW	19	10	Neosho	7.62	Parma	85
Montana	Broadus	86	12	Cooke City	-2	5	Red Lodge	6.71	2 Stations	.07
Nebraska	2 Stations	88	23	Agate 3 E	11	3	Pawnee City	7.62	Agate 3 E	1.45
Nevada	Sunrise Manor Las Vegas	97	30	Lamoille-Miller Ranch	4	2	Elgin 3 SE	1.99	2 Stations	T
New Hampshire	Concord WSO AP	95	19	Mount Washington	-17	12	Mount Washington	6.04	Lancaster	1.42
New Jersey	Plainfield	97	18	Morris Plains 1 W	17	12	Mahwah	4.04	Atlantic City	82
New Mexico	Bitter Lakes W L Refuge	92	27	Sandia Crest	6	17	Raton Filter Plant	3.03	6 Stations	00
New York	New Paltz 4 SW	98	19	Old Forge	2	12	Sodus Center	8.28	Addison	1.21
North Carolina	3 Stations	95	19&	Transou	19	13	Edenton	3.13	Moncure 3 SE	00
North Dakota	4 Stations	85	14	Center	11	11	Steele	4.64	2 Stations	89
Ohio	Springfield New Water Work	93	21	3 Stations	15	12	Toledo Blade	3.93	2 Stations	58
Oklahoma	2 Stations	92	2	2 Stations	21	1	Jay	9.48	Kenton	2.45
Oregon	Mc Kenzie Bridge RS	87	30	2 Stations	5	1	Cape Blanco	8.58	Alkali Lake	11
Pennsylvania	2 Stations	98	23	Clermont 4 NW	9	12	Bradford 4 W	1.15	Palmerton	66
Puerto Rico	San Sebastian 2 WNW	95	30	2 Stations	48	18	Pico Del Este	14.25	Ponce City	05
Rhode Island	Providence WSO AP	98	19	North Foster 1 E	18	12	North Foster 1 E	2.80	Block Island WSO AP	1.26
South Carolina	Andrews	96	18	Dillon 4 SW	23	10	Hilton Head	4.68	Sullivans Island	00
South Dakota	Menno	88	15	Deerfield 4 NW	10	20	Deadwood	4.90	Redfield 6 E	62
Tennessee	2 Stations	99	26	Mountain City 2	17	10	Waynesboro	2.79	Sevierville 1 SE	16
Texas	2 Stations	99	24	Marathon	20	1	Crandall	17.56	Presidio	00
Utah	2 Stations	84	26	Blowhard Mountain Radar	2	26	City Creek Water Plant	4.36	Mexican Hat	07
Vermont	Vernon	97	19	Mount Mansfield	2	12	Mount Mansfield	5.28	Canaan	1.69
Virginia	Walkerton 2 NW	97	14	Big Meadows	10	12	2 Stations	3.22	Colonial Beach	21
Virgin Islands	2 Stations	88	29	2 Stations	63	18	Ham Bluff L H Station	6.44	Charlotte Amalie 2	46
Washington	3 Stations	86	30	Rainier Paradise RS	9	18	Tolt South Fork Reservoir	8.33	Conconully	05
West Virginia	Moorefield 2 SSE	95	18	Spruce Knob	10	12	Mannington 1 N	3.22	Beckley WSO AP	28
Wisconsin	4 Stations	85	17	4 Stations	12	12	Lynxville Dam 9	6.54	Superior	17
Wyoming	3 Stations	84	13	Bondurant 3 NW	-8	3	Alva 5 SE	4.62	2 Stations	39

CLIMATOLOGICAL DATA

METRIC UNITS

APRIL 1974

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days sunrise to sunset: Clear 0.3	No. of days sunrise to sunset: Partly cloudy 4.7	No. of days sunrise to sunset: Cloudy 8.10	Sky cover tenths sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
ALABAMA																																	
BIRMINGHAM	189	995.9	1018.4	24.4	8.3	16.4	-0.9	30.0	20+	2.2	9+	0	0	8.9	66	51	-67	23	6	3	0	0	3.3	1	12..	..	1.	6	9	15	6.4	64
HUNTSVILLE	190	995.6	1018.7	22.3	7.6	15.0	-1.5	27.8	20	1.1	10	0	0	6.7	60	47	-75	24	5	2	0	0	3.2	1	16.5	32	11	10	13	7	6.8	
MOBILE	64	1009.8	1017.7	27.9	14.2	21.1	1.1	30.6	23+	6.1	1	0	0	12.2	63	43	-99	22	5	3	0	0	3.6	15	9.4	14	17	13	6	11	5.1	
MONTGOMERY	59	1010.8	1018.2	24.7	10.5	17.6	-0.8	30.0	19	3.3	10	0	0	9.4	62	42	-71	17	6	3	0	0	3.1	28	8.9	SW	2.	9	14	7	5.2	70
ALASKA												B																				
ANCHORAGE	35	1003.1	1007.9	5.1	-2.0	1.6	-0.3	18.3	30	-8.3	6	0	25	-3.9	67	19	5	8	6	0	142	229	3.3	23	9..	15	27+	6	4	20	7.2	45
ANNETTE	34	1009.8	1013.9	10.8	3.1	6.9	0.9	27.8	29	-1.1	22	3	1	1.1	71	223	1	36	25	0	142	25	3.0	15	13.4	18	14+	4	4	22	7.8	
BARROW	9	1015.2	1015.7	-14.7	-23.1	-18.9	-0.7	-5.0	30	-33.9	1	0	30	-21.1	79	3	-3	1	1	0	41	102	2.2	8	10.3	10	29	0	5	14	0.3	
BAXTER ISLAND	12	1012.9	1015.0	-12.2	-20.4	-16.3	1.4	-0.6	30	-33.3	1	0	30	-18.3	83	5	-1	2	10	0	69	152	1.7	6	15.6	28	16	0	13	11	5.8	
BETHEL	38	1001.7	1007.6	-3.0	-13.5	-8.2	-4.1	10.6	30	-25.0	6	0	30	-10.6	81	8	-3	3	10	0	147	330	1.9	36	10.7	6	7+	5	8	17	7.1	
BETTLES	196	986.1	1010.9	2.6	-9.1	-3.2	3.2	13.3	29	-23.9	15	0	28	-7.8	72	4	-12	3	7		81	660	2.1	2								
BIG DELTA	386			7.4	-3.4	2.0	3.4	20.6	30	-13.9	15	0	25			T	-8	T	0		T	229										
COLD BAY	29	1002.0	1005.5	-0.1	-5.3	-2.7	-3.3	6.1	21	-15.6	6	0	29	-4.4	85	53	14	13	22	0	495	178	6.8	24	22.8	24	5	1	7	22	8.5	
FAIRBANKS	133	990.9	1008.0	8.6	-4.1	2.2	3.9	20.6	30+	-15.6	15	0	24	-7.2	52	2	-6	1	2	0	30	432	6.6	36	10.7	23	27+	10	5	15	6.0	
GULKANA	479			6.7	-5.8	0.4	1.4	17.8	30	-17.2	7	0	28			7	2	7	1		102	254										
HOMER	19			5.7	-2.3	1.7		15.6	30	-6.7	15+	0	27			50	23	19	10	0	330	356			10.7	7	2	6	5	19	7.0	
JUNEAU	4	1011.9	1012.4	9.3	0.8	5.1	1.2	19.4	30	-3.3	15	0	12	0.6	77	54	-22	13	15	0	58	127	3.1	12	13.0	13	13	3	3	24	8.3	49
KING SALMON	15	1003.4	1005.3	2.8	-5.7	-1.4	-1.1	15.6	30	-15.6	5	0	30	-5.0	80	15	-8	5	10	0	157	76	3.7	10	13.0	10	7	4	6	20	7.5	
KODIAK	4	1001.0	1005.4	5.4	-0.8	2.3	-0.4	13.9	30	-6.4	25+	0	18	-1.7	76	90	-7	15	19	0	432	76	0.8	2	15.8	31	13	5	0	19	7.3	
KOTZEBUE	3	1010.8	1011.5	-8.7	-20.7	-14.4	-3.9	4.4	30	-33.9	6	0	30	-17.8	74	1	-7	1	4	0	66	711	0.3	18	11.6	12	14	11	12	7	5.0	
MC GRATH	105	994.9	1007.6	4.1	-8.6	-2.2	0.8	15.6	30	-23.9	15	0	29	-8.3	63	7	-14	1	3	0	96	838	0.5	31	8.9	21	24	6	4	20	6.9	
NOME	4	1008.5	1009.2	-6.4	-18.3	-12.4	-5.1	5.0	30	-28.9	23+	0	30	-14.4	77	7	-11	2	9	0	124	356	1.6	5	13.0	25	5	4	4	13	5.0	69
ST. PAUL ISLAND	7	1005.8	1006.7	-4.6	-11.8	-8.2	-6.2	1.1	30	-22.2	23	0	30	-12.2	70	31	3	12	15	0	173	508	2.3	2	24.9	9	6	0	5	19	7.3	
SUMMIT	731			2.4	-9.7	-3.7	1.1	10.6	30+	-19.4	15	0	30			4	-13	2	3	0	147	1219			8.9	8	14	8	8	14	4.2	
TALKEETNA	105			7.1	-5.7	0.9	0.6	16.7	30	-15.6	6	0	29			9	-19	4	6	0	130	787			6.7	35	14+					
UNALAKLEET	8			-2.3	-12.7	-7.4		8.3	30+	-25.0	15	0	29			6		4	7		74	330			13.4	5	7	4	10	16	7.4	
VALDEZ	7			5.9	-0.9	2.5	0.5	13.9	30	-5.6	7	0	21			139	61		44		103				7.6	16	18+					
YAKUTAT	9	1009.8	1011.0	6.8	-2.2	2.3	0.1	20.0	30	-10.0	6	0	23	-1.7	76	249	55	44	17	0	569	1092	1.8	10	14.8	12	26	10	1	19	4.6	
ARIZONA																																
FLAGSTAFF	2135	784.0	1012.2	14.0	-3.6	5.2	-0.4	22.2	30	-9.4	16	0	27	-6.7	47	79	45	38	6	0	742	457	2.6	22	14.3	SW	26	13	9	8	4.5	69
PHOENIX	339	972.6	1011.0	27.9	12.8	20.4	0.6	35.6	30	5.0	17	6	0	-1.1	28	17	9	10	2	2	0	0	3.4	22	22.4	SW	15	10	10	10	3.4	68
TUCSON	788	923.5	1010.4	26.2	10.2	18.2	-0.4	31.7	30	0.6	17	0	0	-1.1	31	14	6	8	3	0	51	0	1.8	22	16.1	SE	14	15	9	5	3.1	92
WINSLOW	1492	848.6	1012.3	21.2	1.7	11.4	-0.6	26.7	8	-3.9	17	0	9	-5.1	35	5	-4	5	2	1	15	15	3.0	2	16.5	SW	16	13	13	4	4.1	
YUMA	59	1004.4	1011.6	27.3	12.4	19.8	-1.9	36.7	30	7.2	17+	5	0	2.8	37	10	-7	8	3	0	0	0	1.8	25	14.8	W	16	18	10	2	7.9	99
ARKANSAS																																
FORT SMITH	136	1000.0	1016.5	23.3	9.7	16.5	-0.3	28.9	22	1.1	2	0	0	8.3	64	96	-25	46	7	5	0	0	3.0	11	14.3	S	11	5	7	17	4.1	59
LITTLE ROCK	78	1008.1	1017.7	22.3	10.0	16.2	-0.3	28.3	11	1.7	10	0	0	8.9	64	48	-85	19	6	3	0	0	1.4	17	16.3	S	17+	3	7	16	4.1	58
CALIFORNIA																																
BAKERSFIELD	145	997.6	1015.2	22.3	10.3	16.3	-0.8	30.0	30	3.9	16	0	0	5.6	52	19	-2	10	6	0	0	0	1.8	33	13.4	NW	15	17	6	7	3.6	
BISHOP	1252	870.0		19.9	0.9	10.4	-2.1	29.4	30	+5.0	17+	0	13			1	-9	1	1		0	0			24.9W		15	13	13	4	3.6	
BLUE CANYON	1609	836.1	1014.0	9.7	0.6	4.9	-1.7	21.7	30	-7.2	1	0	19			64	-75	19	11		472	279			21.2	SE	15					
EUREKA	13			12.5	5.7	9.1	-0.7	16.7	5	1.1	2+	0	0			71	-4	38	13		0	0			14.8	N	26+	4	9	15	4.8	41
FRESNO	100	1003.7	1015.5	21.3	6.7	14.0	-1.7	33.3	30	1.7	2+	1	0	5.0	61	24	-8	8	5	0	0	0	1.8	31	15.8	NW	15	1	5	14	6.0	68
LONG BEACH	8	1013.9	1015.3	20.3	10.3	15.3	-0.6	29.4	30	6.1	17	0	0	10.0	73	30	7	13	7	1	0	0	1.6	24	13.4	28	15	15	9	6	6.5	
LOS ANGELES	30	1011.5	1015.0	18.6	10.7	14.4	-0.4	25.6	20	6.7	17+	0	0	8.9	79	20	-8	11	8	0	0	0	2.4	25	23.7	W	15	14	9	7	4.2	
LOS ANGELES	82			19.1	9.6	14.3	-2.2	28.9	30	6.1	17+	0	0			21	-11	9	6		0	0			13.4	SW	13	15	6	9	3.7	70
MT SHASTA P	1080	890.6	1015.8	12.6	0.2	6.4	-1.6	24.4	30	-7.2	2	0	18	-1.7	61	96	19	51	12		343	81	0.4	33								
OAKLAND	9	1014.9	1017.0	16.7	8.7	12.7	-0.7	23.9	30	3.9	1	0	0	7.2	74	25	-15	15	7	0	0	0	2.7	24	13.4	W	15	14	8	8	6.4	
RED BLUFF	104	1002.7	1015.5	20.2	6.3	13.3	-2.0	30.6	30	0.6	2	0	0	2.2	54	43	-9	31	7	0	0	0	1.7	24	13.4	W	15	8	11	11	4.1	61
SACRAMENTO	6	1014.6	1015.6	21.4	7.3	14.4	-0.2	30.6	30	3.3	2+	0	0	5.6	62	39	-2	20	6	1	0	0	1.4	24	21.8	NW	15	16	11	3	4.4	63
SANDBERG	1377	860.1		11.9	2.7	7.1	-2.5	24.4	30	+4.4	16	0	11			21	-9	10	4		0	0			20.6	NW	25+					
SAN DIEGO	4	1014.6	1015.6	19.3	12.8	16.1	0.2	25.6	14	9.4	17	0	0	8.3	69	34	13	23	5	1	0	0	1.8	27	14.3	W	15	11	8	11	5.1	59
SAN FRANCISCO	2	1015.9	1015.7	16.5	9.1	11.8	-1.1	20.2	30	2.8	1	0	0	4.4	65	23	-17	11	6	0	0	0	2.5	27	18.3	NW	15	11	12	7	6.2	
SAN FRANCISCO	14			15.6	9.0	12.3	-0.7	20.0	30	6.1	1	0	0			18	-24	9	7													
SANTA MARIA	72			17.3	4.6	10.9	-1.8	23.9	30+	0.0	16	0	1			30	-3	16	7		0	0						10	9	5	3.7	
STOCKTON	7	1014.6	1015.6	19.3	4.6	11.9	-2.8	27.8	30	1.0	17	0	1	3.3	69	28	-7	19	5	1	0	0	0.4	3	13.8	NW	15	11	10	9	6.2	
COLORADO																																
ALAMOSA	2297	768.7		15.3	-3.8	5.8	0.7	28.6	25	-9.4	3	0	26			12	-3	5	2		53	51	2.7	0				8	11	11	4.0	

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No of days (sunrise to sunset): Clear, 0-3	No of days (sunrise to sunset): Partly cloudy, 4-7	No of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
COLORADO	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
COLORADO SPRINGS	1973	808.0	1012.3	16.2	1.2	8.7	0.8	22.8	9	-5.6	18	0	9	-3.9	48	41	5	24	11	2	257	203	6.7	10	17.0	18	13	6	15	9	6.1	
DENVER	1610	833.4	1010.9	17.2	1.9	9.6	0.9	26.1	12	-3.9	3	0	5	-2.2	50	32	-17	13	12	2	10	T	2.8	19	18.3	S	25	6	11	13	6.5	66
GRAND JUNCTION	1476	848.6	1010.7	19.0	3.1	11.1	0.1	26.7	11	-3.3	27	0	4	-5.6	37	10	-10	6	5	3	5	T	2.4	11	21.9	S	25	7	10	13	6.1	67
PUEBLO	1428	852.0	1010.9	19.9	1.6	10.7	-0.2	26.7	8	-6.1	1	0	8	-1.1	51	22	-10	17	6	2	T	T	2.7	5	18.3	SW	26	9	8	13	6.0	86
CONNECTICUT																																
BRIDGEPORT	2	1013.9	1014.3	16.4	4.8	10.6	1.5	28.9	18	-3.9	12	0	3	1.1	56	60	-26	37	6	3	0	0	2.5	31	13.0	30	23	9	10	11	5.5	
HARTFORD	52	1006.8	1013.4	18.7	5.0	11.8	3.1	35.6	19	-5.6	12	3	6	1.1	54	100	5	60	8	2	0	0	2.2	30	13.4	NW	11	6	12	12	6.3	60
DELAWARE																																
WILMINGTON	23	1012.9	1016.0	19.1	6.1	12.6	1.8	31.7	17	-2.8	12	0	3	2.2	53	36	-46	12	7	4	T	0	2.1	30	13.0	33	11	12	10	8	4.6	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1004.4	1016.4	20.1	3.1	11.6	-0.1	32.2	18	-6.7	10	1	10	2.2	57	33	-42	46	4	4	0	0	2.0	29	13.0	30	27	15	10	5	3.9	
WASHINGTON NATIONAL	3	1013.9	1016.4	22.5	8.5	15.5	1.9	35.0	18	0.0	12	5	1	3.3	47	30	-43	40	5	3	0	0	1.8	31	14.8	NW	26	17	6	7	4.9	85
FLORIDA																																
APALACHICOLA J	6	1017.6	1018.1	24.6	13.7	19.2	-1.0	31.1	19	7.8	4	0	0	15.0	76	9	-83	5	4	1	0	0	0.8	18	7.6	NW	26+	14	7	9	5.1	71
DAYTONA BEACH	9	1016.6	1018.0	25.8	13.8	19.8	-1.1	31.7	25	5.0	2	0	0	13.9	69	108	48	132	4	2	0	0	1.2	7	9.4	12	30+	15	6	9	4.5	
FORT MYERS	5	1017.3	1017.5	28.7	14.9	21.8	-1.2	32.2	29	10.0	11	1	0	15.0	69	23	-26	18	5	2	0	0	2.4	4	10.3	32	20+	15	11	4	3.9	
JACKSONVILLE	8	1017.3	1018.4	25.8	11.2	18.5	-1.6	31.1	24	4.4	10	0	0	12.8	72	16	-62	9	4	3	0	0	2.7	9	11.2	SW	25+	12	11	7	4.8	77
KEY WEST	1	1016.3	1017.0	27.4	21.8	24.6	-1.0	29.4	28+	19.4	14+	0	0	16.7	64	122	67	92	4	2	0	0	3.0	9	23.2	NW	6	17	10	3	3.7	41
LAKELAND U	65			28.6	15.9	22.3	0.1	32.8	23	11.7	2	4	0			88	18	49	5									13	10	7	4.6	89
MIAMI	2	1017.3	1017.6	27.6	20.3	23.9	0.1	31.1	1	15.6	12	0	0	17.2	66	106	14	41	9	1	0	0	2.1	9	12.5	9	16	9	14	7	4.9	
ORLANDO/MC COY AFB	29	1014.2	1018.1	29.0	14.7	21.8	0.0	32.8	24+	9.4	11	4	0	13.9	66	55	-14	29	5	3	0	0	1.2	5	10.7	1	9	15	9	6	4.6	
PENSACOLA	34	1013.9	1018.0	26.6	14.8	20.7	0.6	30.6	19	7.2	1	0	0	12.2	69	45	-82	19	4	3	0	0	0.9	17	9.4	17	30	14	10	6	4.5	
TALLAHASSEE	17	1015.9	1018.2	27.7	10.9	19.3	-0.6	32.8	19	3.3	3	1	0	12.2	69	42	-61	17	5	2	0	0	0.3	11	9.4	18	30	7	16	7	5.4	
TAMPA	6	1017.6	1017.8	27.7	15.1	21.4	-0.8	31.7	29	7.8	2	0	0	14.4	67	46	-7	19	6	1	0	0	0.8	5	11.2	3	6	14	7	9	4.8	84
WEST PALM BEACH	5	1016.9	1017.7	27.3	17.9	22.6	-0.7	31.1	26	12.2	3	0	0	15.0	64	32	-57	17	3	3	0	0	2.1	8	11.2	11	30+	8	16	6	4.8	
GEORGIA																																
ATHENS	244	988.8	1017.6	24.4	9.5	17.0	0.4	31.1	19	2.8	2	0	0	5.7	53	19	-92	13	4	2	0	0	0.9	25	9.4	26	25	15	10	5	4.1	
ATLANTA	309	981.0	1017.9	23.9	9.1	16.5	0.3	29.4	20+	1.7	1	0	0	6.7	56	38	-79	20	4	0	0	0	1.0	28	12.5	N	11	11	11	8	4.6	79
AUGUSTA	41	1012.5	1017.9	26.3	8.4	17.4	-0.3	33.3	19	0.0	10	2	1	8.3	60	51	-35	34	4	2	0	0	0.5	23	11.6	30	4	15	7	8	4.1	
COLUMBUS	117	1004.1		26.0	10.7	18.4	0.3	31.7	20+	3.3	10	0	0	9.4	62	69	-46	35	4	2	0	0	0.4	33	7.6	18	22+	12	12	7	4.7	
MACON	108	1005.1	1018.1	26.7	9.9	18.3	-0.4	32.8	24+	3.3	10	2	0	9.4	61	49	-41	31	3	2	0	0	0.4	28	10.3	SW	25	15	8	7	4.6	87
ROME	194			24.9	6.7	15.8	-0.1	30.6	23+	0.6	2	0	0			24	-95	14	5		0	0											
SAVANNAH	14	1016.9	1018.7	25.0	10.8	17.9	-1.0	31.1	23	2.2	10	0	0	10.0	64	143	68	143	1	1	0	0	0.6	12	13.4	N	30	13	10	7	4.5	80
HAWAII																																
HILO	8	1018.0	1019.3	25.8	18.8	22.3	-0.1	27.2	26+	16.1	2	0	0	18.9	84	294	-33	30	30	0	0	0	0.3	12	8.0	E	12	0	7	23	8.6	40
HONOLULU	2	1018.3	1018.7	27.7	20.2	23.9	0.2	29.4	25+	17.2	26	0	0	15.6	63	18	-17	4	15	0	0	0	5.2	6	13.0	NE	24	4	13	13	6.8	52
KAHULUI	15	1015.9	1018.2	27.7	19.2	23.4	0.2	30.6	16	15.0	26	0	0			25	-7	7	11	0	0	0	5.8	5	16.1	E	18	10	6	14	5.9	60
LIHUE	31	1014.9	1020.1	26.0	21.9	23.9	1.0	27.2	24	20.0	25+	0	0	18.9	73	87	4	26	24	11	0	0	5.0	7	14.7	NE	44	0	14	16	7.5	39
IDAHO																																
BOISE	865	913.3	1014.1	15.1	1.9	8.5	-0.9	22.8	30+	-6.7	2	0	11	-1.1	55	41	12	16	10	1	5	0	0.7	33	15.6	NW	25	6	11	13	6.3	74
LEWISTON	431			16.4	3.7	10.1	-0.1	25.6	30	-1.1	16+	0	2			33	4	16	13		8	T			23.7V		20	4	6	20	7.6	
POCATELLO	1358	860.1	1013.7	13.6	0.1	6.8	-0.6	21.1	24+	-5.0	3	0	18	-1.7	61	79	45	32	13	0	394	330	2.7	33	15.6	SW	18+	3	11	16	7.3	61
ILLINOIS																																
CAIRO J	96			21.6	10.4	16.0	0.3	30.6	23	3.9	26	0	0			32	-79	17	7		0	0			13.0	SW	21					75
CHICAGO O HARE	201	992.9	1017.5	17.1	5.4	11.3	1.9	29.4	17+	-3.9	12	0	9	2.8	58	103	17	70	10	4	20	25	4.3	16	17.4	W	20	10	8	12	5.4	
CHICAGO MIDWAY	185	995.3	1017.9	16.9	6.2	11.6	1.6	31.1	17	-0.6	5	0	4	2.8	57	121	26	90	8	7	8	T	0.3	13	15.6	NE	25+	11	8	11	5.5	73
MOLINE	177	995.6	1017.3	18.3	4.9	11.6	1.3	29.4	17	-4.4	12	0	7	3.3	59	107	10	57	10	4	0	0	1.9	16	14.3	S	17	9	8	13	5.8	63
PEORIA	199	993.6	1017.8	19.1	5.4	12.3	1.6	29.4	15	-1.7	12+	0	6	5.0	64	123	13	52	8	4	0	0	1.2	14	18.9	SW	18	11	5	14	6.0	62
ROCKFORD	221	990.5	1017.9	16.6	3.1	9.8	0.8	28.9	17	-5.0	12	0	13	2.2	62	91	-5	26	13	4	8	T	0.5	11	15.6	4	25+	9	9	12	5.6	
SPRINGFIELD	179	995.3	1017.6	19.6	6.0	12.8	1.1	27.8	17+	-2.8	12	0	5	6.1	66	27	-78	13	7	4	0	0	1.6	17	13.9	N	25	11	5	14	5.6	64
INDIANA																																
EVANSVILLE	116	1004.4	1018.6	21.6	6.4	14.0	0.3	31.1	20	-0.6	13+	0	4	6.7	64	33	-70	23	5	3	3	0	0.8	22	13.0	SW	21	12	7	11	5.0	81
FORT WAYNE	241	987.5	1017.7	18.2	4.1	11.2	1.6	28.9	17+	-5.0	9	0	11	2.8	60	52	-39	34	8	3	T	0	1.3	27	15.1	SW	21	9	9	12	5.2	78

CLIMATOLOGICAL DATA

METRIC UNITS

APRIL 1976

State and Station	Elevation ground	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2°C or above	Temperature: No. of days: Min 0°C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days sunrise to sunset: Clear 0-3	No. of days sunrise to sunset: Partly cloudy 4-7	No. of days sunrise to sunset: Cloudy 8-10	Sky cover, tenths: Sunrise to sunset	Possible sunshine
	m	mb	mb	°C	°C	°C	°C	°C		°C				°C	%	mm	mm	mm			cm	cm	m/s		km/h								
INDIANA																																	
INDIANAPOLIS	241	989.5	1018.7	19.0	4.7	11.9	0.6	27.8	20+	-3.3	12	0	9	4.4	64	25	-73	15	5	2	6	6	1.3	24	33.4	SW	19	14	8	12	5.3	72
SOUTH BEND	236	989.5	1017.6	17.8	4.9	11.4	2.4	30.0	16	-3.9	12	0	11	3.9	64	132	31	70	11	5	15	4	0.8	28	42.5	SW	12	11	9	10	5.2	
IOWA																																	
BURLINGTON	211																																
DES MOINES	286	981.7	1010.5	18.2	5.5	11.9	1.2	27.8	17	-3.3	12	0	4	2.8	53	100	19	71	7	2			1.3	18	42.5	SW	18	3	6	12	5.3	
DUBUQUE	322	978.3		19.0	7.0	13.0	3.3	27.8	14	-0.6	12+	0	2	4.4	61	197	121	76	8	6			1.8	13	39.1	S	18	3	4	13	5.6	
SIOUX CITY	334	976.0	1015.9	16.1	3.6	9.6	1.2	25.6	7	-3.9	12	0	11			96	-17	28	4	1	7	4						9	12	11	6.8	64
WATERLOO	265	985.1	1017.3	18.0	3.2	10.3	1.7	26.1	16	-2.8	1	0	4	3.3	59	57	-1	27	4	1	7	3	1.3	16	36.8	S	16	6	13	5.4	67
KANSAS																114	37	56	6	3	7	3	1.0	2	34.4	SW	9	7	10	13	6.2	
CONCORDIA	448	961.7	1014.6	18.6	4.7	12.7	1.2	29.9	14	-0.0	4	0	1	0.1	08	1.0	55	24	03	1			1.9	14	37.4	S	5	3	10	13	4.2	
DODGE CITY	787	922.8	1013.0	20.7	7.1	13.9	1.7	30.6	14	-2.2	4	0	1	5.6	64	159	116	59	03	6			2.3	19	52.4	S	5	3	10	13	5.7	69
GOODLAND	1114	885.5	1012.4	17.9	3.2	10.0	1.3	26.1	14	-3.9	4+	0	5	1.7	03	22	-14	9	03	2	1	1	1.6	17	37.0	S	16	7	7	16	5.4	68
TOPEKA	267	984.1	1013.8	20.7	7.1	13.9	1.4	32.2	14	-3.9	1	4	2	7.2	69	123	31	55	6				1.3	19	39.4	S	7	4	7	12	5.4	
WICHITA	403	967.2	1014.9	20.6	7.7	14.2	0.5	30.0	2	-5.0	1	0	2	6.1	63	141	67	55	03	10			2.1	16	47.4	S	5	5	10	15	6.3	69
KENTUCKY																																	
COVINGTON	265	986.5	1018.2	21.1	5.6	13.4	1.2	31.7	20	-2.8	12+	0	8	4.4	57	31	-62	16	6	3	0	0	1.9	25	41.2	SW	18	5	10	15	6.3	69
LEXINGTON	294	983.1	1018.6	19.9	6.1	12.5	-0.4	28.9	20	-4.4	12	0	7	3.9	57	31	-67	16	6	3	0	0	1.9	25	41.2	SW	18	5	10	15	6.3	69
LOUISVILLE	145	1000.7	1018.3	21.7	6.6	14.2	0.9	30.6	20	-1.7	12	0	4	5.6	59	19	-85	9	5	2	0	0	1.8	23	36.8	S	5	3	7	14	4.4	
LOUISIANA																																	
ALEXANDRIA	28	1013.2	1017.3	26.8	12.6	19.7	1.1	31.7	23+	5.0	1	0	0	12.8	69	47	-84	24	6	2			2.7	14	40.7	SW	14	10	6	14	5.4	
BATON ROUGE	20	1014.9	1017.7	26.9	13.6	20.2	0.0	29.4	23+	5.6	1	0	0	13.3	69	10	-102	6	3	1	0	0	2.3	14	41.8	SW	14	12	14	16	6.3	
LAKE CHARLES	3	1015.9	1017.7	26.1	14.7	20.4	-0.1	29.4	25+	7.2	1	0	0	15.0	76	31	-78	10	6	3	0	0	2.3	14	41.8	SW	14	12	14	16	6.3	
NEW ORLEANS	1	1016.5	1017.3	26.7	13.8	20.3	-0.1	30.0	21	4.4	1	0	0	15.0	72	7	-93	3	3	1	0	0	2.3	14	41.8	SW	14	12	14	16	6.3	
SHREVEPORT	77	1007.5	1016.6	26.5	12.7	19.6	0.5	30.0	24+	4.4	2	0	0	12.8	69	44	-89	26	9	3	1	0	1.8	15	37.0	SW	12	7	11	12	6.3	69
MAINE																																	
CARIBOU	190	987.5		8.3	-1.3	3.5	0.9	21.7	19	-11.1	12	0	15																				
PORTLAND	18	1009.8	1026.1	13.1	1.3	7.2	1.3	27.2	20	-8.3	12	0	12	-0.6	64	84	23	34	10		13	102						11	14	7.6		
MARYLAND																61	-23	24	6	1	7	0	1.7	32	43.6	NW	24	5	7	14	6.6	64
BALTIMORE	45	1010.8	1019.6	20.9	6.7	13.8	1.7	33.9	18	-1.1	12	3	1	9.3	53	32	-44	18	5	4			2.7	21	54.3	N	12	10	8	12	6.0	67
MASSACHUSETTS																																	
BLUE HILL OBS	192			16.9	4.7	10.8	2.8	34.4	19	-7.8	12	2	6																				
BOSTON	6	1011.9	1020.8	18.3	7.3	12.8	3.6	34.4	18	-4.4	12	1	2	1.1	51	62	-23	20	7		7				19.0	NE	1					53
WORCESTER	301	976.6		15.3	3.6	9.5	2.1	32.8	19	-9.4	12	1	8	0.3	56	51	-38	19	5	1	4		2.6	31	51.0	NW	19	5	12	13	6.6	64
MICHIGAN																67	-35	22	5	1	4		3.4	32	51.8	NW	24	3	3	14	6.6	64
ALPENA	210	992.2	1017.4	13.6	0.8	7.2	2.7	30.4	14	-7.6	4	0	19	-0.6	68	34	-29	12	7	2	9	5	1.6	31	51.0	NW	24	5	7	14	6.6	64
DETROIT	189			15.9	6.4	10.7	1.7	29.6	14	-3.9	7	0	6	1.1	56								1.6	27	41.8	SW	18	3	6	12	5.3	
DETROIT METRO	193	991.2	1017.4	16.7	3.2	10.0	1.3	29.6	17+	-7.8	12	0	11	2.2	65	80	-2	39	7	2	6	4	1.6	31	51.0	NW	24	5	7	14	6.7	63
FLINT	235	989.2	1017.5	14.7	3.2	9.0	1.3	27.8	14	-5.0	12+	0	12	2.2	67	140	69	73	10	2	12	5	1.4	28	44.6	SW	18	3	6	13	5.6	64
GRAND RAPIDS	239	988.5	1017.1	15.8	2.1	9.0	0.9	28.3	17+	-6.7	12	0	12	1.7	63	121	35	53	6	2	7	3	1.3	26	41.8	SW	18	3	6	13	5.4	64
MUSKEGON CO ARP	350	976.3	1017.5	13.3	1.6	7.5	2.0	26.7	14	-6.3	12	0	17	-0.6	63	43	-18	24	5	2	7	3	1.3	27	41.8	SW	18	3	6	13	5.4	64
LANSING	256	985.8	1017.4	15.4	2.6	8.9	0.9	27.8	17+	-6.7	12	0	16	0.8	73	90	-2	37	7	2	10	4	1.3	27	41.8	SW	18	3	6	13	5.4	64
FLINT AP	206			13.3	2.1	8.1	2.6	26.7	14	-3.3	12+	0	13			48	-20	24	5	2	7	3	1.3	27	41.8	SW	18	3	6	13	5.4	64
SAGINAW	191	994.4	1017.5	13.3	2.1	8.1	2.6	26.7	14	-3.3	12+	0	12	1.1	66	87	-1	45	8	3	8	4	1.8	25	41.8	SW	18	3	6	13	5.4	64
SAULT STE MARIE	221	994.5	1017.5	10.4	-1.6	4.4	1.0	28.3	19	-9.4	11	1	24	-1.6	74	48	-8	24	5	1	11	3	1.3	27	41.8	SW	18	3	6	13	5.4	64
MINNESOTA																																	
DULUTH	435	966.1	1018.9	11.5	0.3	5.9	2.2	30.2	14	-7.6	4	0	14	-2.3	58	48	-46	11	5	1	5	2	1.3	11	30.3	NW	11	5	7	12	5.3	61
INTERNATIONAL FALLS	359	974.3	1018.1	10.7	-0.8	5.0	2.6	33.3	17+	-6.7	4+	0	23	-3.7	61	24	-19	6	3	1	2	1	1.3	11	30.3	NW	11	5	7	12	5.3	61
MINNEAPOLIS	256	984.6	1018.1	14.7	4.3	11.0	3.7	28.3	14	-3.3	4+	0	5	1.1	53	22	-30	11	3	1	2	1	1.8	16	41.8	SW	18	3	6	13	5.4	64
ROCHESTER	395	964.4	1018.1	13.1	2.4	9.7	2.8	27.4	14	-3.9	4+	0	16	1.7	61	30	-28	13	3	2	6	2	1.8	16	41.8	SW	18	3	6	13	5.4	64
ST CLOUD	313	981.6	1017.7	16.9	1.1	9.1	3.0	28.7	15+	-2.8	4	0	15	1.7	61	23	-35	12	3	1	4	2	1.3	15	39.1	SW	18	3	6	13	5.4	64
MISSISSIPPI																																	
JACKSON	94	1006.1	1015.6	26.6	11.1	18.8	-0.2	35.1	29	3.9	10	0	0	11.7	70	53	-65	24	6	3	0	0	2.4	14	41.8	S	17	11	12	13	6.5	

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32°C or above	Temperature: No. of days: Min 0°C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
MISSISSIPPI	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
MERIDIAN	88	1007.1	1018.2	25.8	8.8	17.3	-1.2	29.4	23	1.7	10	0	0	11.1	73	26	-104	17	4	1	0	0	0.1	15	8.0	15	17	9	12	9	5.5	
MISSOURI																																
COLUMBIA REGIONAL	270	984.8	1017.1	19.1	6.7	12.9	0.1	27.2	23	-2.8	12	0	1	6.1	66	56	-41	28	10	2	0	0	1.8	16	18.3	SW	20	7	8	15	6.5	62
KANSAS CITY	309	979.0	1015.7	19.1	7.9	13.5	0.7	28.3	2	0.0	1	0	1	7.2	68	84	-5	33	10	4	0	0	2.0	16	15.6	S	16	8	6	16	6.3	60
ST JOSEPH	247			19.8	7.6	13.7	1.4	30.0	14	-1.1	1	0	1			142	60	50	9		0	0										
ST LOUIS	163	997.6	1018.0	20.4	6.8	13.6	0.0	31.7	23	-2.8	12	0	3	6.7	65	30	-65	18	5	2	0		1.9	17	12.1	SE	20	10	8	12	5.7	81
SPRINGFIELD	386	971.2	1016.6	20.6	7.5	14.1	0.4	26.7	17	-1.1	26	0	1	6.7	64	138	29	80	10	5	0	0	2.1	16	15.2	S	16	10	2	18	6.5	55
MONTANA																																
BILLINGS	1087	888.9	1013.6	14.4	1.3	7.8	0.8	26.7	12	-5.0	3	0	9	-1.7	57	90	50	29	15	1	155	25	1.4	34	13.4	NE	16	6	8	14	6.4	60
GLASGOW	696	932.3	1014.6	15.9	1.6	8.8	2.8	26.1	12	-6.1	20	0	11	-0.6	58	15	-3	12	8	0	5	T	2.2	10	17.0	10	26	8	9	13	6.1	
GREAT FALLS	1116	886.2	1014.4	14.4	1.9	7.8	1.5	25.0	12	-3.3	2	0	15	-2.2	56	59	29	27	10	0	424	102	1.7	24	13.9	E	27	9	7	14	6.4	51
HAVRE	789	921.1	1013.5	16.8	1.5	9.2	2.7	26.7	12	-6.7	3	0	10	-1.1	53	11	-15	3	8	2	5	0	0.5	8	14.3	E	26	6	9	13	6.0	66
HELENA	1167	879.1	1015.2	13.2	-0.8	6.2	0.3	22.2	12	-5.6	4	0	23	-3.9	54	34	10	18	9	0	277	76	2.0	28	14.3	SW	12	7	6	17	6.6	52
KALISPELL	904	910.6	1016.1	13.4	0.8	7.1	1.6	22.8	11	-3.9	3	0	10	-0.6	64	25	-1	7	10	1	51	25	0.3	10	10.3	24	12	6	5	19	7.4	
MILES CITY	801	920.1	1013.5	15.4	3.0	9.2	1.8	26.1	12	-3.9	3	0	5	1.7	65	36	4		16	0	41		0.9	6								
MISSOULA	972	903.2	1015.7	15.2	0.7	7.9	1.3	25.0	11	-3.9	21	0	12	0.0	63	24	-2	10	10	0	51	T	1.2	31	14.3	NW	24	7	6	17	7.0	55
NEBRASKA																																
GRAND ISLAND	561	948.5	1014.8	17.8	5.9	11.8	1.9	26.7	15	-2.2	1	0	2	4.4	65	71	9	27	12	5	0	0	1.7	14	20.6	18	16	9	8	13	5.9	
LINCOLN	359	972.6	1015.4	18.7	6.1	12.4	1.7	27.8	14	-3.9	1	0	2	5.6	67	91	28	27	10	8	0	0	1.0	15	21.9	SW	16	10	5	15	6.2	58
NORFOLK	471			17.9	5.8	11.9	2.7	27.8	15	-3.3	1	0	2			45	-9	14	11		0	0						10	7	13	5.9	
NORTH PLATTE	846	916.0	1014.5	15.6	1.5	8.6	-0.2	25.6	13	-8.3	4	0	10	1.7	68	71	22	30	10	5	T	T	1.1	12	17.0	NW	21	6	11	13	6.5	53
OMAHA	298	980.4	1015.7	20.6	6.9	13.8	2.5	30.6	14	-3.3	1	0	2	5.6	61	76	0	20	9	6	0	0	1.3	15	25.9	S	16	10	5	15	6.1	58
SCOTTSBLUFF	1206	877.1	1013.0	16.7	2.3	9.5	1.6	26.7	12	-6.7	3	0	6	0.6	61	63	24	23	12	2	23	T	0.5	7	15.6	30	13	9	3	18	6.6	
VALENTINE	789			15.7	2.9	9.2	1.6	26.7	13	-5.6	4	0	7			52	7	16	12		T	T			22.8	S	9	6	12	12	6.2	63
NEVADA																																
ELKO	1539	841.5	1012.8	13.4	-3.0	5.2	-1.2	21.7	24	-10.6	2	0	27	-5.6	50	17	-4	8	6	0	20	0	0.8	25	14.3	25	8	3	8	19	7.3	
ELY	1906	804.9	1011.9	13.2	-4.8	4.3	-0.8	21.7	24	-9.4	2	0	29	-5.0	56	20	-6	6	8	1	175	76	1.6	22	17.4	S	8	9	5	16	6.6	01
LAS VEGAS	659	935.0	1010.9	24.4	9.6	17.0	-0.7	32.8	24	3.9	16	2	0	-5.6	25	3	-4	3	3	0	0	0	1.9	22	23.2	SW	15	15	9	6	3.8	89
RENO	1342	862.9	1012.9	16.7	-2.8	6.9	-1.3	26.1	30	-9.4	9	0	23	-5.0	45	5	-7	4	3	0	69	51	1.4	31	14.3	SE	4	7	10	13	6.1	84
WINNEMUCCA	1311	865.6	1012.9	17.4	-2.1	7.7	0.4	26.1	30	-10.0	2	0	19	-6.1	40	21	2	12	8	0	122	25	0.9	32	16.1	N	15	6	10	14	6.3	54
NEW HAMPSHIRE																																
CONCORD	104	1000.0	1012.7	15.9	0.3	8.2	1.4	35.0	19	-11.7	13	3	15	-1.1	58	62	-12	29	5	1	T	0	2.4	31	14.8	NW	12	6	10	14	6.3	66
MT WASHINGTON OBS	1909			-1.1	-8.2	-4.6	0.6	15.6	19	-27.2	12	0	25			153	15	40	15	1	584	178			53.2Y	W	5	1	9	20	8.1	41
NEW JERSEY																																
ATLANTIC CITY	20	1013.2	1015.6	17.8	3.8	10.8	-0.1	31.1	17	-3.9	12	0	8	2.8	61	21	-64	9	8	2	0	0	2.1	28	11.2	31	11	9	12	9	5.2	67
ATLANTIC CITY U	3			16.5	7.3	11.9	1.6	29.4	16	-0.6	12	0	1			21	-61	11	5						13.0	NW	26					
NEWARK	2	1013.5	1014.6	18.3	7.4	12.9	1.9	33.9	18	-2.8	12	2	2	1.7	59	64	-24	33	5	3	T	0	2.4	29	12.1	29	3	10	9	11	5.4	
TRENTON U	17			18.8	7.0	12.9	1.7	33.9	18	-3.3	12	4	3			31	-49	19	7		0	0			13.4	NW	12	13	10	7	4.4	68
NEW MEXICO																																
ALBUQUERQUE	1619	835.1	1010.2	21.5	3.6	12.6	-0.7	27.2	25	-4.4	17	0	4	-5.6	33	8	-4	6	5	1	5	T	1.6	20	20.6	E	30	11	8	11	5.1	79
CLAYTON	1515			19.7	4.1	11.9	1.4	26.7	23	-1.7	17	0	4			21	-11	9	6		0	0										
ROSWELL	1112	887.2	1009.8	25.5	9.7	17.6	2.2	31.7	26	2.2	1	0	0	0.6	38	20	-8	12	4	5	0	0	1.3	18	19.7	NE	30	8	9	13	5.7	
NEW YORK																																
ALBANY	84	1004.1	1014.6	16.5	3.1	9.8	1.6	33.3	19	-7.2	12	2	8	1.1	59	92	24	34	9	1	T	T	3.3	29	18.9	NW	13	8	8	14	6.2	70
BINGHAMTON	485	956.7	1016.1	13.6	3.1	8.3	1.3	29.4	19	-10.0	12	0	11	-0.6	57	68	-12	26	12	4	46	25	3.1	29	11.6	NW	11	11	6	13	5.9	60
BUFFALO	215	990.9	1016.9	12.6	3.5	8.1	0.9	27.2	21	-5.6	12	0	7	1.7	68	102	22	38	13	4	64	25	2.8	25	14.3	SW	22	6	11	13	6.4	59
NEW YORK U	40	1011.5	1014.4	18.2	7.3	12.8	1.6	35.6	18	-3.9	12	3	2	1.1	50	71	-13	38	6	2	T	T	1.9	33	10.3	NW	11					81
NEW YORK KENNEDY	4	1014.2	1014.8	16.9	6.9	11.9	2.0	31.7	17	-2.2	12	0	2	2.8	59	57	-34	27	6	3	0	0	2.6	30	13.0	31	26	13	8	9	4.8	
NEW YORK LA GUARDIA	3	1013.5	1014.7	17.5	8.7	13.1	2.2	32.8	18	-1.7	12	1	1	2.2	49	62	-28	38	5	3	0	0	2.7	30	14.3	NW	11	10	10	10	5.1	
ROCHESTER	167	996.3	1016.7	14.6	3.8	9.2	1.4	29.4	18	-5.6	12	0	9	3.3	71	97	27	32	11	5	46	25	3.2	28	14.3	SW	22	7	12	11	6.0	60
SYRACUSE	125	1000.7	1015.7	14.9	3.3	9.1	1.1	29.4	18	-7.2	12	0	9	1.1	62	206	128	72	13	4	23	T	3.0	28	21.5	W	21	11	6	13	5.6	59
NORTH CAROLINA																																
ASHEVILLE	652	942.1	1018.2	21.4	3.9	12.7	-0.6	28.3	19	-1.7	10	0	6	2.8	56	6	-63	4	4	2	0	0	1.3	35	10.3	36	26	19	7	4	3.4	87

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation ground	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days Max 32.2 °C or above	Temperature: No. of days Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days 25 mm or more	Precipitation: No. of days With thunderstorms	Precipitation: Snow, Ice pellets Total	Precipitation: Snow, Ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No. of days sunrise to sunset: Clear 0.3	No. of days sunrise to sunset: Partly cloudy 4.7	No. of days sunrise to sunset: Cloudy 8.10	Sky cover tenths sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm										
NORTH CAROLINA																																
CAPE HATTERAS R	2	1017.3	1017.8	20.8	10.3	15.6	0.6	27.8	17	-2.8	13	0	2	10.0	69	15	-63	6	3													
CHARLOTTE	224	991.5	1017.8	23.2	7.8	15.5	-0.5	30.6	19	-1.1	10	0	1	4.4	59	8	-79	4	2													
GREENSBORO	273	986.8	1017.5	23.9	7.7	15.8	1.1	32.2	19+	-0.6	13	2	2	4.4	61	16	-64	12	7	3												
RALEIGH	132	1001.7	1017.4	24.3	7.5	15.9	0.7	33.3	18	-2.8	10	2	3	5.0	62	8	-77	4	2													
WILMINGTON	9	1016.9	1018.2	25.2	10.2	17.7	0.3	33.9	18	0.6	13	2	0	9.9	68	22	-52	20	3	1	0	0	0.0	36	14.3	36	6	4	5	2.2	6.2
NORTH DAKOTA																																
BISMARCK	502	955.3	1015.6	15.1	0.9	8.1	1.9	25.6	13	-8.9	11	0	14	1.1	67	29	36	24	10	5	20	25	11.7	7	19.2	32	17	7	8	15	4.8	6.6
FARGO	273	983.1	1016.4	14.9	1.8	8.3	2.6	28.3	13	-3.3	27+	0	11	0.6	69	37	-23	16	6	2	T	T	10.0	12	23.8	32	17	8	8	14	5.1	5.7
WILLISTON	579	946.5	1015.7	15.0	0.7	7.9	2.1	25.6	13	-8.3	3	0	12	0.0	68	27	-24	16	8	1	10	11	11.1	8	15.6	32	17	6	8	16	4.4	5.6
OHIO																																
AKRON	368	973.2	1018.1	16.0	3.1	9.6	0.4	27.8	18	-7.8	12	0	13	0.6	67	42	-43	19	10	4	49	7	9.1	27	13.4	32	17	4	13	8	4.3	
CINCINNATI AP&F DB	232			20.6	6.2	13.4	0.6	30.6	20	-2.6	12	0	4			24	-74	15	6						9.8	32	17					
CLEVELAND	237	988.9	1018.2	15.3	3.7	9.5	0.4	28.3	18	-3.9	13	0	9	3.9	71	56	-36	16	12	4	41	7	11.3	3	17.9	32	17	4	14	9	5.4	6.0
COLUMBUS	247	986.5	1018.4	17.5	3.4	10.5	-0.2	28.9	18	-6.1	12	0	13	2.8	69	37	-56	16	7	3	4	1	11.1	36	17.0	32	17	9	11	9	5.1	6.3
DAYTON	303	982.1	1018.5	18.2	4.3	11.3	0.5	28.9	20	-5.0	12	0	10	3.9	69	44	-34	16	8	3	7	1	11.6	25	18.8	32	17	8	11	11	5.1	7.1
MANSFIELD	395			15.8	3.1	9.5	-0.5	27.8	18	-7.2	12	0	13			35	-50	11	6	3	5	2	9.1	27	12.5	32	17	8	11	10	4.8	
TOLEDO	204	992.6	1018.	16.8	2.3	9.6	0.5	30.6	18	-8.3	12	0	16	2.2	69	71	-26	24	12	4	42	7	11.6	28	17.0	32	17	7	13	10	5.4	6.4
YOUNGSTOWN	359	974.6	1017.8	16.4	3.8	10.1	1.4	30.6	18	-6.7	12	0	11	1.1	68	43	-59	16	12	3	45	7	11.1	32	17.9	32	17	9	10	11	4.8	
OKLAHOMA																																
OKLAHOMA CITY	392	968.8	1014.9	22.8	10.1	16.4	0.7	28.9	7	1.1	1	0	0	8.3	63	26	-13	24	10	1	1	1	13.0	14	15.6	32	16	7	7	16	4.7	5.9
TULSA	198	991.2	1015.3	22.7	10.1	16.4	0.4	28.9	2	1.1	1	0	0	8.3	64	210	104	81	11	5	1	1	9.0	17	14.5	32	1	9	8	13	4.2	5.5
OREGON																																
ASTORIA	2	1016.9	1017.8	13.8	4.7	9.3	0.5	21.1	30+	0.0	2+	0	0	5.9	77	93	-27	19	11	3	4	1	11.1	24	16.8	32	14	3	11	16	7.2	
BURNS	1265			12.9	-2.0	5.5	-1.3	22.2	30	-9.4	2	0	29			13	-13	8	4		25	25			9.1	14	5					
EUGENE	109	1003.7	1017.5	15.3	3.3	9.3	-0.8	25.6	30	-0.6	4	0	2	4.4	75	68	-41	18	8	2	1	1	9.6	32	14.8	32	14	5	11	15	6.2	6.3
MEDFORD	396	969.2	1017.1	15.9	1.8	8.9	-1.2	27.2	30	-4.4	2	0	8	1.7	65	42	-17	18	12	2	4	1	11.6	32	14.8	32	14	4	11	15	5.1	7.3
PENDLETON	452	962.1	1016.	16.1	4.1	10.1	-0.4	27.8	30	-0.6	16+	0	4	1.7	59	28		20	7	2	1	1	11.6	36	17.0	32	14	4	11	15	4.2	7.3
PORTLAND	6	1015.9	1017.3	15.6	4.7	10.2	-0.2	27.8	30	-0.6	2	0	2	3.9	67	58	-3	13	7	1	1	1	11.1	28	16.8	32	14	3	11	16	7.4	6.7
SALEM	60	1009.5	1017.	14.6	2.3	8.4	-1.4	26.1	30	-2.2	2	0	16	4.4	75	51	-8	14	8	1	1	1	11.1	32	14.8	32	14	5	11	15	7.4	
SEXTON SUMMIT R	1169	882.2	1016.3	9.4	-0.3	4.6	-1.4	23.9	30	-6.7	1	0	19			91	-21	31	13		241	203			17.4	32	1	1	1	28	7.7	
PACIFIC AREA																																
PAGO PAGO R	110			29.1	22.5	25.8	-0.3	30.1	29+	18.9	8	0	0			117	-6	77	20		0	0										
JOHNSTON	2	1014.6	1015.	26.6	21.7	24.6	-0.7	27.6	1+	20.0	6	0	0	20.0	77	81	-34	17	7	1	0	0	8.0	7	17.9	32	1	4	7	20	8.2	7.3
KWAJALEIN	29	1005.1		30.9	24.3	27.6	-0.1	33.2	30+	23.3	17+	3	0			516	24	356	18	4	0	0	5.3	5	17.0	32	1	4	7	20	8.2	7.3
MAJURO	3	1009.1		29.8	25.0	27.4	-0.3	30.4	10+	22.8	25	0	0			332	173	83	13	3	0	0	5.3	5	17.0	32	1	4	7	20	8.2	7.3
MIDWAY	3	1009.5		29.3	23.4	26.4	-0.9	30.6	30+	21.7	9	0	0			493	281	178	17	4	0	0	5.3	5	17.0	32	1	4	7	20	8.2	7.3
PAGO PAGO	4	1010.3	1011.8	31.3	23.5	26.9	-0.1	31.7	14+	21.7	26+	0	0	20.3	81	248	-85	77	12	3	0	0	5.3	5	17.0	32	1	4	7	20	8.2	7.3
PUNAPE R	37			30.2	23.9	26.7	-0.3	30.2	30+	21.1	27	2	0			518	-1	178	19	4	0	0	5.3	5	17.0	32	1	4	7	20	8.2	7.3
TRUK MOEN ISLAND	2	1009.8		30.2	24.3	27.6	-0.2	33.1	30+	22.2	19	3	0			451	-1	127	16	4	0	0	5.3	5	17.0	32	1	4	7	20	8.2	7.3
WAKE	9	1014.9	1015.3	29.1	27.4	28.1	-1.1	30.6	28+	25.0	4	0	0	20.6	74	37	-91	14	11	1	0	0	2.6	8	10.1	32	1	4	7	20	8.2	7.3
YAP R	13	1004.3		30.3	22.7	26.6	-1.1	31.7	20	21.1	30+	0	0			109	0	56	11	1	0	0	2.6	8	10.1	32	1	4	7	20	8.2	7.3
PENNSYLVANIA																																
ALLENTOWN	118	1001.7	1017.8	17.9	4.4	11.3	1.3	33.9	18	-4.4	12	3	5	0.6	64	58	-44	16	7	2	4	1	9.0	30	14.1	32	17	4	13	8	4.8	
ERIE	223	996.9	1018.1	11.3	3.0	7.1	0.6	24.4	18	-5.6	4	0	18	3.3	71	99	-26	24	12	4	41	7	11.6	8	17.9	32	17	4	14	9	5.1	6.0
HARRISBURG	109	1004.1	1017.4	19.0	6.0	12.5	0.4	32.2	19+	-1.7	12	3	3	2.8	64	41	-36	16	7	2	1	1	9.0	30	13.4	32	17	4	13	8	4.8	
PHILADELPHIA	2	1004.6	1015.7	18.3	7.0	13.7	2.1	34.4	18	-1.7	12	4	2	2.2	62	59	-45	16	7	2	1	1	9.0	30	13.4	NW	17	4	13	8	4.8	
PITTSBURGH	367	979.6	1018.	16.7	3.9	10.8	0.2	30.6	18	-6.1	12	0	8	0.6	64	83	-5	24	12	4	42	7	11.6	28	17.0	32	17	4	13	8	4.8	
SCRANTON	283	981.4	1018.7	16.5	4.0	10.1	1.5	33.3	18	-6.1	12	3	8	0.5	59	58	-42	20	11	2	4	1	11.6	31	14.1	NW	17	4	13	8	4.8	
WILLIAMSPORT	161	997.1	1018.1	18.6	4.8	11.6	1.7	33.3	18	-3.9	12	3	6	1.1	62	48	-34	20	8	2	1	1	9.4	30	14.1	32	17	4	13	8	4.8	
RHODE ISLAND																																
BLOCK ISLAND	34			15.8	6.3	11.1	3.7	33.3	17	-4.4	12	2	6			30	-51	15	8													
PROVIDENCE	16	1011.2	1018.4	17.7	5.0	11.4	2.9	36.7	19	-3.2	12	2	3	1.1	58	58	-66	24	8	2	1	1	9.0	8	14.1	32	8	7	10	13	4.5	5.9
SOUTH CAROLINA																																
CHARLESTON	13	1016.9	1018.7	25.4	10.1	17.8	-0.3	30.0	29	1.7	10	1	0	8.9	61	18	-58	9	3	1			9.7	18	16.3	32	1	4	7	19	6.1	6.7

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0.3	No. of days (sunrise to sunset): Partly cloudy, 4.7	No. of days (sunrise to sunset): Cloudy, 8.10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
SOUTH CAROLINA				24.4	15.1	19.7	0.9	32.2	18	9.4	10	1	0			14	-55	13	2		0	0											
CHARLESTON J	3			26.8	9.1	18.0	0.2	32.8	24+	-1.1	10	4	1	6.1	51	21	-69	17	3	2	0	0	0.7	24	8.9	7	12	19	8	2	3.6	78
COLUMBIA	65	1010.2	1018.2	23.9	6.3	15.1	-1.0	31.1	19	-1.1	10	0	1	5.0	54	16	-92	11	3	1	0	0	0.0	23	[illegible]	SW	4	19	6	5	3.1	84
SOUTH DAKOTA																																
ABERDEEN	395	968.2	1015.5	17.1	2.5	9.8	3.1	27.8	15	-5.0	4	0	13	1.7	64	32	-19	10	10	0	10	1	1.3	13	19.2	13	16	9	6	15	6.0	
HURON	390	968.2	1015.1	16.7	1.1	8.9	1.3	29.4	15	-8.3	4	0	16	1.1	63	28	-22	13	8	3	T	T	1.4	14	24.1	SW	16	8	11	11	5.8	63
RAPID CITY	964	903.5	1014.8	14.7	1.9	8.3	1.3	26.7	13+	-3.3	3	0	9	0.6	64	69	15	27	12	2	89	76	1.2	36	19.2	SW	13	5	6	19	6.9	53
SIOUX FALLS	432	964.4	1016.1	17.8	3.3	10.6	2.7	27.8	15	-7.2	4	0	7	2.2	58	55	-4	14	11	4	T	0	1.0	19	17.9	20	16	9	8	13	6.1	
TENNESSEE																																
BRISTOL	459	964.1	1018.5	21.6	4.3	12.9	-0.6	30.0	19	-2.8	13	0	7	3.9	57	5	-78	2	6	2	0	0	1.0	28	11.6	26	22	17	8	5	3.9	
CHATTANOOGA	203	993.6	1018.3	23.7	6.8	15.2	-0.6	30.6	20	0.0	2	0	1	6.7	64	26	-86	12	6	2	0	0	0.4	36	11.2	21	21+	12	11	7	4.4	73
KNOXVILLE	299	983.4	1018.2	22.9	7.0	14.9	-0.8	30.6	19	1.1	27+	0	0	5.6	57	10	-82	4	6	2	0	0	0.8	31	13.4	24	25	13	10	7	4.4	65
MEMPHIS	79	1007.8	1018.2	23.5	11.4	17.6	0.6	28.9	23	4.4	10	0	0	7.8	55	61	-76	32	6	4	0	0	0.9	14	17.3	29	35+	9	9	12	5.9	60
NASHVILLE	180	997.0	1018.6	23.0	7.9	15.5	-0.1	30.0	20	1.1	13	0	0	6.7	60	39	-66	19	4	3	0	0	.4	32	9.4	20	24	13	8	9	4.6	82
OAK RIDGE R	276			22.4	4.4	13.4	-1.2	30.0	20+	-2.2	13+	0	4			22	-85	6	5		0	0			16.1		21	15	7	8	4.1	
TEXAS																																
ABILENE	544	950.9	1013.1	24.8	11.6	18.2	-0.2	30.0	2	2.2	1	0	0	10.0	65	94	31	34	9	9	0	0	3.3	15	21.9	SE	15	9	4	17	6.4	52
AMARILLO	1098	888.9	1011.7	21.2	6.3	13.8	0.2	28.9	22+	-0.6	1	0	1	3.3	58	42	11	20	7	4	0	0	3.3	18	16.5	14	26+	9	8	13	6.0	73
AUSTIN	182	992.9	1014.7	24.9	15.1	20.0	-0.3	30.0	24	7.2	1	0	0	15.0	77	207	118	91	11	10	0	0	2.1	15	13.9	NW	20	4	3	23	7.8	36
BROWNSVILLE	6	1013.2	1013.8	27.6	19.3	23.4	-0.4	29.4	24+	11.1	1	0	0	18.9	79	145	113	87	8	6	0	0	4.4	14	16.5	S	17+	1	12	17	7.7	56
CORPUS CHRISTI	12	1012.5	1014.0	27.6	18.5	23.1	0.4	30.6	24	7.2	1	0	0	18.9	80	93	39	32	7	6	0	0	5.1	14	18.3	N	29	3	5	22	7.7	67
DALLAS - FORT WORTH	168	993.9	1015.2	23.5	13.0	18.3	-0.2	28.3	12	4.4	1	0	0	12.8	73	145	36	35	16	10	2	0	2.0	15	11.2	15	15	6	8	16	6.9	
DEL RIO	313	976.6	1012.2	27.1	15.4	21.3	-0.9	33.9	24	7.2	1	1	0	13.3	67	62	22	19	11	10	0	0	3.3	11	13.9	31	15	6	5	19	7.2	
EL PASO	1194	879.4	1009.5	26.7	8.9	17.8	0.1	33.3	25	0.0	1	1	1	-1.7	32	8	2	7	3	0	T	0	1.9	23	15.6	29	16	11	13	6	4.6	84
GALVESTON	2			23.2	19.0	21.1	0.4	27.2	25	15.6	30+	0	0			64	-3	31	6		0	0			16.1	SE	15					69
HOUSTON INTERCON	29	1012.2	1016.1	25.7	13.9	19.8	-0.9	28.9	11	3.9	1	0	0	15.6	80	277	187	247	9	5	0	0	2.5	13	13.4	14	15	5	9	16	7.3	41
LUBBOCK	992	901.5	1011.5	23.8	9.9	16.9	1.3	30.6	14	1.7	1	0	0	5.6	56	45	17	25	8	5	0	0	2.6	16	14.8	26	11	10	7	13	5.9	70
MIDLAND	869	913.6	1011.0	25.9	10.3	18.1	0.2	31.7	14	2.2	1	0	0	7.2	57	51	30	25	6	7	0	0	2.8	17	15.6	27	15	10	7	13	5.5	
PORT ARTHUR	5	1015.9		25.8	14.9	20.4	-0.1	28.9	25	7.2	1	0	0	16.1	80	48	-58	24	7	3	0	0	2.7	15	15.2	S	16	6	10	14	6.6	61
SAN ANGELO	580	946.5	1012.5	24.9	12.3	18.6	-0.9	29.4	13	3.9	1	0	0	11.1	66	87	44	39	8	11	0	0	2.8	16	23.2	28	15	6	7	15	6.2	
SAN ANTONIO	240	986.5	1014.2	25.6	15.4	20.5	-0.4	29.4	24	5.0	1	0	0	15.0	75	144	83	45	13	11	0	0	2.4	13	19.2	NW	7	4	3	23	8.0	35
VICTORIA	32	1010.8	1015.1	26.3	16.9	21.6	0.1	28.9	24+	9.4	2	0	0	17.2	80	150	83	43	10	8	0	0	3.5	13	20.6Y	SE	15	2	6	22	8.1	
WACO	153	997.0	1014.9	24.4	13.5	19.0	-0.6	28.9	24	5.0	1	0	0	14.4	79	166	64	36	13	10	0	0	2.5	14	15.6	14	15	5	3	22	7.7	
WICHITA FALLS	303	977.7	1013.8	24.7	11.0	17.9	-0.1	30.6	22	0.0	1	0	0	11.7	71	137	57	27	12	8	0	0	2.7	16	18.8	14	15	7	8	15	6.3	
UTAH																																
MILFORD	1533	842.9	1012.3	16.3	-2.3	7.1	-1.4	23.9	24	-8.9	26	0	23			30	7	12	8		241	102			21.9	SW	1	10	8	12	5.6	70
SALT LAKE CITY	1286	868.6	1012.3	16.1	3.1	9.6	0.1	24.4	11	-2.2	2	0	3	0.6	57	63	9	41	10	4	89	25	0.6	22	21.9	NW	25	6	5	19	7.2	71
WENDOVER	1291	867.6	1012.5	15.3	3.3	9.6	-0.9	21.7	20+	-3.3	2	0	4	-3.9	42	17	6	8	7		25	7	0.9	24								
VERMONT																																
BURLINGTON	101	1001.4	1013.9	14.8	2.3	8.6	2.4	32.8	19+	-8.9	12	2	11	-0.6	56	65	-2	25	8	1	23	T	1.4	31	13.0	NW	11	5	11	14	6.6	62
VIRGINIA																																
LYNCHBURG	279	983.4		22.6	5.8	14.2	0.6	32.8	18	-2.2	13	2	8			7	-62	42	4		0	0			11.6	NE	8+	17	9	4	3.2	92
NORFOLK	7	1015.9	1017.0	23.0	10.2	16.6	2.3	32.8	16	1.1	13	4	0	5.6	52	25	-44	22	4	3	0	0	1.2	29	12.5	2	4	14	13	3	3.6	79
RICHMOND	50	1010.5	1016.8	25.1	6.6	15.8	1.5	35.6	17	-3.9	13	7	6	5.0	51	27	-43	26	4	2	0	0	1.1	29	11.6	N	11+	15	9	6	4.0	85
ROANOKE	350	975.3	1017.1	23.0	5.2	14.1	0.8	32.8	19+	-2.2	12	4	4	2.2	47	12	-59	11	3	3	0	0	1.8	30	13.4	32	4	16	11	3	3.4	
WALLOPS ISLAND	3			18.5	7.4	13.0	0.7	31.7	16	-1.1	12	0	1			22	-56	15	5		0	0			24.1Y	NNW	4					
WASHINGTON																																
OLYMPIA	59	1009.5	1016.7	14.8	0.7	7.8	-1.2	26.7	30	-2.8	26+	0	13	3.3	75	71	-9	11	17	0	T	0	1.2	19	9.8	25	24	2	11	17	7.9	
QUILLAYUTE	55	1009.5	1016.8	13.7	2.6	8.2	0.5	23.3	29	-2.8	1	0	8	3.3	77	110	-97	36	18	0	T	0	0.6	23	17.3	NW	15	1	9	20	7.7	39
SEATTLE U	6			15.7	5.7	10.7	0.4	29.4	30	0.6	2	0	0			53	-8	15	17		0	0			15.6Y		24					
SEATTLE-TACOMA	122	1000.7	1017.1	14.4	5.0	9.7	0.4	28.4	30	-1.1	2	0	2	3.3	71	42	-20	11	14	1	T	0	0.7	19	13.0	SW	20	1	12	17	7.6	64
SPOKANE	718	930.9	1015.3	13.2	1.5	7.3	-0.5	21.7	30	-3.3	21	0	11	-0.6	62	28	-4	11	8	0	10	T	1.1	18	15.6	NE	27	5	4	21	7.4	54
STAMPEDE PASS R	1206	878.1		5.1	-1.3	1.9	-0.1	15.6	30	-6.1	2+	0	24			142	-26	27	18		878	3099						3	4	23	8.0	
WALLA WALLA U	289			16.1	4.8	10.4	-1.1	25.6	30	0.0	2	0	1			35	-1	13	10		T	0						5	10	15	6.8	
YAKIMA	321	977.3	1016.1	16.3	1.5	8.9	-0.8	25.6	30	-3.3	25	0	12	-1.1	52	8	-5	3	7	0	0	0	1.6	32	14.3	30	20	6	8	16	7.0	

CLIMATOLOGICAL DATA

METRIC UNITS

APRIL 1975

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days sunrise to sunset: Clear 0.3	No. of days sunrise to sunset: Partly cloudy 4.7	No. of days sunrise to sunset: Cloudy 8.10	Sky cover tenths sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							
WEST INDIES																																
SAN JUAN P.R.	4	1012.9	1015.4	29.3	22.4	25.8	0.6	32.2	8	20.0	3	1	0	17.2	60	100	-4	66	1	1	0	0	11.8	9	11.6	E	10+	6	16	8	5.6	55
WEST VIRGINIA																																
BECKLEY	763	929.9	1018.4	18.4	3.7	11.1	0.2	30.0	18	-7.8	12	0	13	0.0	51	7	-77	3	0	3	7	0	2.0	27	11.0	29	6	11	8	11	4.2	
CHARLESTON	286	984.4	1018.8	21.4	4.4	12.9	-0.4	32.8	20	-5.0	12	3	11	2.8	59	13	-72	7	5	2	0	0	1.4	27	11.3	32	25	13	7	10	4.5	
ELKINS	594	947.2		18.2	-0.1	9.1	-0.8	31.1	18	-8.9	13	0	16			29	-63	8	7		46	4						14	8	8	4.7	
HUNTINGTON	252	988.2	1018.4	21.3	5.4	13.3	0.2	31.7	20	-3.9	12	0	8	2.2	50	19	-64	10	5	2	0	0	1.0	30	9.7	31	25	9	9	12	5.3	
PARKERSBURG	187			19.9	4.7	12.3	-0.2	32.8	20+	-3.3	12+	2	10			24	-63	8	7		6	0			18.8	SW	4					28
WISCONSIN																																
GREEN BAY	208	992.2	1018.3	13.3	2.0	7.7	1.1	27.8	16	-5.0	12	0	16	1.7	69	62	-5	22	11	1	8	1	5.6	32	16.1	NE	25	7	8	15	4.3	37
LA CROSSE	198	993.9	1018.6	16.7	2.9	9.8	1.2	28.6	16	-3.3	2	0	11	2.8	65	111	44		9	3	0		0.3	9								
MADISON	262	986.1	1017.8	17.1	2.2	9.6	2.2	28.3	17	-5.6	8	0	16	2.2	65	129	54	45	12	4	T	T	0.3	12	14.8	NE	25	11	6	13	3.8	34
MILWAUKEE	205	992.6	1018.2	14.4	4.1	9.3	2.2	28.9	17+	-3.9	12	0	10	2.2	63	127	57	79	14	3	T	T	0.5	34	16.5	NE	25+	12	5	13	5.4	33
WYOMING																																
CASPER	1627	834.4	1012.4	13.7	-0.4	6.7	0.7	22.2	12	-9.4	3	0	13	-1.7	63	39	2	21	8	1	25	25	1.0	21	14.8	26	4	5	4	16	6.7	
CHEYENNE	1867	808.7	1012.1	12.4	-0.8	5.9	0.0	21.1	12	-3.9	4+	0	21	-4.4	54	45	4	24	11	4	100	76	1.3	28	18.8	NW	4	8	8	14	6.7	45
LANDER	1696	825.6	1012.6	13.6	-0.3	6.7	0.6	20.6	11	-6.1	3	0	15	-4.4	50	30	-30	15	8	1	23	25	1.0	25	21.1	NW	22	4	12	13	6.8	54
SHERIDAN	1209	876.1	1013.7	14.8	-0.1	7.3	0.9	24.4	12	-8.3	3	0	19	0.0	65	57	3	23	14	2	21	76	1.1	32	14.3	NW	10	7	7	16	6.5	56

HEATING DEGREE DAYS

(Base 65°F.)

APRIL 1976

State and station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	129	2580	2824
HUNTSVILLE	181	3048	3270
MOBILE	8	1390	1684
MONTGOMERY	67	2138	2261
ALASKA			
ANCHORAGE	897	10168	10016
ANNETTE	610	6328	6251
BARROW	2014	19529	17882
BARTER ISLAND	1867	19196	17706
BETHEL	1427	13319	12029
BETTLES	1196	15527	14933
BIG DELTA	877	13708	12861
COLD BAY	1125	9199	8486
FAIRBANKS	861	14000	13585
GULKANA	960	13070	12948
HOMER	892	9476	9171
JUNEAU	706	8039	8089
KING SALMON	1059	11349	10459
KODIAK	896	8607	7725
KOTZEBUE	1771	15653	14334
MC GRATH	1102	14891	13554
NOME	1656	14500	12804
ST. PAUL ISLAND	1422	10897	9463
SUMMIT	1180	13628	13032
TALKEETNA	931	11436	10773
UNALAKLEET	1390	13500	12689
VALDEZ	848	9242	9478
YAKUTAT	858	8641	8401
ARIZONA			
FLAGSTAFF	702	6319	6641
PHOENIX	52	1089	1552
TUCSON	88	1461	1752
WINSLOW	366	4756	4595
YUMA	48	910	1005
ARKANSAS			
FORT SMITH	123	3126	3319
LITTLE ROCK	146	2839	3333
CALIFORNIA			
BAKERSFIELD	140	2016	2163
BISHOP	423	4147	4130
BLUE CANYON	718	5070	5082
EUREKA U	490	4341	3997
FRESNO	242	2960	2590
LONG BEACH	165	1080	1512
LOS ANGELES	205	1191	1634
LOS ANGELES U	215	1276	1160
MT SHASTA R	697	5507	5341
OAKLAND	299	2911	2602
RED BLUFF	269	2803	2616
SACRAMENTO	211	2364	2703
SANDBERG R	604	5748	4023
SAN DIEGO	115	1015	1376
SAN FRANCISCO	344	3039	2712
SAN FRANCISCO U	321	2720	2629
SANTA MARIA	394	2757	2641
STOCKTON	339	2955	2724
COLORADO			
ALAMOSA	672	8059	7998
COLORADO SPRINGS	512	5629	6069
DENVER	469	5319	5683
GRAND JUNCTION	386	5715	5452
PUEBLO	401	5086	5218
CONNECTICUT			
BRIDGEPORT	420	4771	5212
HARTFORD	391	5474	6100
DELAWARE			
WILMINGTON	341	4277	4812
DIST.OF COLUMBIA			
WASHINGTON DULLES	382	4686	4874
WASHINGTON NATIONAL	236	3333	4139
FLORIDA			
APPALACHICOLA U	20	1353	1361
DAYTONA BEACH	16	851	897
FORT MYERS	0	397	457
JACKSONVILLE	43	1390	1327
KEY WEST	0	57	64
LAKELAND U	0	625	678
MIAMI	0	202	206
ORLANDO	1	660	733
PENSACOLA	12	1305	1578
TALLAHASSEE	32	1594	1563
TAMPA	2	668	718
WEST PALM BEACH	0	306	299
GEORGIA			
ATHENS	116	2556	2953
ATLANTA	124	2735	3068
AUGUSTA	97	2160	2337
COLUMBUS	55	2106	2372
MACON	62	2062	2234
ROME	148	2984	3309
SAVANNAH	69	1744	1952
IDAHO			
BOISE	524	5575	5484
LEWISTON	439	4895	5148
POCATELLO	615	6496	6589
ILLINOIS			
CAIRO U	184	3247	3795
CHICAGO O HARE	411	5358	6212
CHICAGO MIDWAY	405	5305	5893
MOLINE	385	5518	6191
PEORIA	351	5427	5901
ROCKFORD	473	6234	6577
SPRINGFIELD	321	4823	5414
INDIANA			
EVANSVILLE	275	4063	4529
FORT WAYNE	404	5367	5970
INDIANAPOLIS	363	4922	5407
SOUTH BEND	407	5243	6182
IOWA			
BURLINGTON	358	5325	5961
DES MOINES	302	5406	6498
DUBUQUE	461	6433	6981
SIOUX CITY	361	6110	6731
WATERLOO	441	6527	7147
KANSAS			
CONCORDIA	310	4801	5449
DODGE CITY	249	4268	4910
GOODLAND	414	5106	5848
TOPEKA	269	4546	5112
WICHITA	238	4177	4590
KENTUCKY			
COVINGTON	321	4430	4923
LEXINGTON	339	4303	4615
LOUISVILLE	266	3783	4535
LOUISIANA			
ALEXANDRIA	35	1825	2200
BATON ROUGE	13	1549	1670
LAKE CHARLES	9	1401	1498
NEW ORLEANS	21	1430	1465
SHREVEPORT	38	1798	2162
MAINE			
CARIBOU	793	9189	8988
PORTLAND	594	6900	7011
MARYLAND			
BALTIMORE	293	3920	4619
MASSACHUSETTS			
BLUE HILL OBS R	450	5599	6010
BOSTON	331	4715	5376
WORCHESTER	511	6247	6492
MICHIGAN			
ALPENA	612	7419	7913
DETROIT	445	5267	5964
DETROIT METRO	473	5758	6139
FLINT	518	5985	6670
GRAND RAPIDS	526	6169	6487
HOUGHTON LAKE	590	7308	7838
LANSING	528	6264	6576
MARQUETTE U	653	7344	7713
MUSKEGON	561	5884	6510
SAULT STE MARIE	746	8373	8497
MINNESOTA			
DULUTH	667	8937	9078
INTERNATIONAL FALLS	659	9715	9917
MINNEAPOLIS	405	6964	7823
ROCHESTER	468	6974	7857
ST CLOUD	501	8174	8459
MISSISSIPPI			
JACKSON	59	2079	2294
MERIDIAN	80	2393	2381
MISSOURI			
COLUMBIA REGIONAL	307	4487	4950
KANSAS CITY	277	4577	5038
ST JOSEPH	270	4704	5306
ST LOUIS	288	4297	4637
SPRINGFIELD	245	3962	4466
MONTANA			
BILLINGS	559	6489	6801
GLASCOW	510	7639	8474
GREAT FALLS	565	6763	7123
HAVRE	492	6976	8221
HELENA	649	7337	7595
KALISPELL	598	7232	7868
MILES CITY	486	6964	7484
MISSOULA	554	6873	7333
NEBRASKA			
GRAND ISLAND	354	5714	6201
LINCOLN	328	5460	6030
NORFORK	352	6108	6741
NORTH PLATTE	521	6763	6440
OMAHA	261	5166	5881
SCOTTSBLUFF	469	5907	6403
VALENTINE	485	6607	6954
NEVADA			
ELKO	701	6703	6887
ELY	749	7025	7103
LAS VEGAS	124	2316	2591
RENO	610	5754	5549
WINNEMUCCA	568	5486	6121
NEW HAMPSHIRE			
CONCORD	565	7375	6987
MT WASHINGTON OBS	1233	12046	12320
NEW JERSEY			
ATLANTIC CITY	409	4708	4806
ATLANTIC CITY U	356	4099	4498
NEWARK	338	4466	4891
TRENTON U	337	4255	4812
NEW MEXICO			
ALBUQUERQUE	304	4411	4234
CLAYTON	341	4589	4997
ROSWELL	90	2789	3677
NEW YORK			
ALBANY	472	6146	6596
BINGHAMTON	554	6450	6890
BUFFALO	557	6020	6548
NEW YORK U	360	4419	4711
NEW YORK KENNEDY	348	4391	4987
NEW YORK LA GUARDIA	320	4228	4764
ROCHESTER	507	5922	6388
SYRACUSE	509	6087	6360
NORTH CAROLINA			
ASHEVILLE	296	3886	4123
CAPE HATTERAS R	190	2202	2684
CHARLOTTE	192	2884	3184
GREENSBORO	199	3213	3766
RALEIGH	194	2953	3466
WILMINGTON	122	1929	2426
NORTH DAKOTA			
BISMARCK	550	7756	8583
FARGO	533	8234	8840
WILLISTON	556	8310	8681
OHIO			
AKRON	484	5274	5960
CINCINNATI ABBE OB	310	4177	4719
CLEVELAND	493	5367	5870
COLUMBUS	440	4988	5513
DAYTON U	403	4865	5462
MANSFIELD	494	5615	5593
TOLEDO	497	5875	6120
YOUNGSTOWN	468	5620	6126
OKLAHOMA			
OKLAHOMA CITY	128	3035	3659
TULSA	126	3184	3652
OREGON			
ASTORIA	483	4498	4646
BURNS U	687	6640	6605
EUGENE	478	4134	4317
MEDFORD	503	4662	4586
PENDLETON	436	4499	4950
PORTLAND	437	4143	4400
SALEM	529	4615	4424
SEXTON SUMMIT R	736	5824	5657
PENNSYLVANIA			
ALLENTOWN	414	5072	5616
ERIE	580	5874	6435
HARRISBURG	354	4588	5096
PHILADELPHIA	307	4126	4743
PITTSBURGH	453	5234	5696
PITTSBURGH U	419	4744	5107
SCRANTON	451	5383	6030
WILLIAMSPORT	393	5306	5763
RHODE ISLAND			
BLOCK ISLAND	402	4708	5342
PROVIDENCE	403	5296	5677
SOUTH CAROLINA			
CHARLESTON	94	1856	2141
CHARLESTON U	38	1402	1904
COLUMBIA	97	2144	2586
GRNVLLE-SPRTNBRG	190	2964	3134
SOUTH DAKOTA			
ABERDEEN	454	7270	8221
HURON	502	7165	7710
RAPID CITY	535	6365	6871
SIOUX FALLS	418	6898	7514
TENNESSEE			
BRISTOL	297	3631	4208
CHATTANOOGA	180	3388	3454
KNOXVILLE	203	3396	3431
MEMPHIS	100	2572	3205
NASHVILLE	183	3060	3651
OAK RIDGE	262	3835	3867
TEXAS			
ABILENE	66	2389	2594
AMARILLO	253	3761	4092
AUSTIN	19	1462	1737
BROWNSVILLE	0	570	650
CORPUS CHRISTI	1	773	930
DALLAS FT WORTH	48	1906	2382
DEL RIO	3	1217	1523
EL PASO	91	2541	2678
GALVESTON	0	1004	1224
HOUSTON INTERCON	26	1442	1634
LUBBOCK	116	2999	3516
MIDLAND	73	2266	2621
PORT ARTHUR	16	1418	1518
SAN ANGELO	48	2127	2240
SAN ANTONIO	11	1422	1570
VICTORIA	2	1068	1227
WACO	38	1721	2058
WICHITA FALLS	73	2459	2891
UTAH			
MILFORD	602	6376	6056
SALT LAKE CITY	464	5566	5658
WENDOVER	470	5748	5556
VERMONT			
BURLINGTON	545	7122	7482
VIRGINIA			
LYNCHBURG	273	3790	4148
NORFORK	186	2860	3432
RICHMOND	227	3284	3875
ROANOKE	271	3661	4206
WALLOPS ISLAND	300	3487	4123
WASHINGTON			
OLYMPIA	563	5249	4992
QUILLAYUTE	542	5227	5223
SEATTLE	411	4141	4325
SEATTLE-TACOMA	465	4520	4705
SPOKANE	588	6315	6304
STAMPEDE PASS R	880	8265	8247
WALLA WALLA U	421	4359	4611
YAKIMA	500	5512	5676
WEST VIRGINIA			
BECKLEY	421	4638	5350
CHARLESTON	342	3930	4467
ELKINS	492	5084	5676
HUNTINGTON	314	3878	4498
PARKERSBURG U	367	4306	4689
WISCONSIN			
GREEN BAY	579	7328	7669
LA CROSSE	460	6720	7124
MADISON	477	6511	7301
MILWAUKEE	507	6067	7006
WYOMING			
CASPER	625	6834	7020
CHEYENNE	661	6565	6705
LANDER	624	7310	7337
SHERIDAN	587	6848	7165

COOLING DEGREE DAYS

(Base 65°F.)

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM	27	60	107
HUNTSVILLE	8	25	73
MOBILE	140	251	226
MONTGOMERY	34	60	147
ALASKA			
ANCHORAGE	0	0	0
ANNETTE	0	0	0
BARROW	0	0	0
BARTER ISLAND	0	0	0
BETHEL	0	0	0
BETTLES	0	0	0
BIG DELTA	0	0	0
COLD BAY	0	0	0
FAIRBANKS	0	0	0
GULKANA	0	0	0
HOMER	0	0	0
JUNEAU	0	0	0
KING SALMON	0	0	0
KODIAK	0	0	0
KOTZEBUE	0	0	0
MCGRATH	0	0	0
NOME	0	0	0
ST. PAUL ISLAND	0	0	0
SUMMIT	0	0	0
TALKEETNA	0	0	0
UNALAKLEET	0	0	0
VALDEZ	0	0	0
YAKUTAT	0	0	0
ARIZONA			
FLAGSTAFF	0	0	0
PHOENIX	149	213	176
TUCSON	89	105	120
WINSLOW	0	0	9
YUMA	138	190	319
ARKANSAS			
FORT SMITH	33	46	63
LITTLE ROCK	37	69	54
CALIFORNIA			
BAKERSFIELD	34	55	77
BISHOP	0	0	19
BLUE CANYON	0	0	0
EUREKA	0	0	0
FRESNO	16	18	41
LONG BEACH	8	59	29
LOS ANGELES	1	39	21
LOS ANGELES AP	10	55	59
MT SHASTA R	0	0	0
OAKLAND	0	0	0
RED BLUFF	3	3	53
SACRAMENTO	8	9	26
SANDBERG R	0	0	0
SAN DIEGO	3	27	25
SAN FRANCISCO	0	0	0
SAN FRANCISCO AP	0	0	0
SANTA MARIA	0	0	0
STOCKTON	0	0	22
COLORADO			
ALAMOSA	0	0	0
COLORADO SPRINGS	0	0	0
DENVER	0	0	0
GRAND JUNCTION	0	0	0
PUEBLO	0	0	6
CONNECTICUT			
BRIDGEPORT	10	10	0
HARTFORD	47	47	0
DELAWARE			
WILMINGTON	37	37	0
DIST. OF COLUMBIA			
WASHINGTON DULLES	28	28	0
WASHINGTON NATIONAL	92	97	7
FLORIDA			
APPALACHICOLA	72	124	221
DAYTONA BEACH	104	298	340
FORT MYERS	193	534	606
JACKSONVILLE	40	161	238
KEY WEST	343	1033	1099
LAKELAND U	219	550	489
MIAMI	309	881	778
ORLANDO	196	493	462
PENSACOLA	147	222	247
TALLAHASSEE	94	149	223
TAMPA	175	454	487
WEST PALM BEACH	237	638	664
GEORGIA			
ATHENS	30	63	49
ATLANTA	30	39	39
AUGUSTA	51	81	91
COLUMBUS	63	93	124
MACON	70	102	149
ROME	30	27	39
SAVANNAH	93	133	168
HAWAII			
HILO	222	823	769
HONOLULU	311	1073	972
KAHULUI	283	923	882
LIHUE	312	1072	832
IDAHO			
BOISE	0	0	0
LEWISTON	0	0	0
POCATELLO	0	0	0
ILLINOIS			
CAIRO U	66	79	51
CHICAGO O HARE	36	36	0
CHICAGO MIDWAY	44	46	0
MOLINE	26	26	0
PEORIA	28	28	5
ROCKFORD	21	21	0
SPRINGFIELD	28	31	6
INDIANA			
EVANSVILLE	47	53	25
FORT WAYNE	26	26	0
INDIANAPOLIS	21	21	6
SOUTH BEND	37	38	0
IOWA			
BURLINGTON	19	19	5
DES MOINES	19	19	0
DUBUQUE	9	9	0
SIOUX CITY	13	13	6
WATERLOO	10	10	0
KANSAS			
CONCORDIA	10	10	10
DODGE CITY	19	23	14
GOODLAND	0	0	0
TOPEKA	34	35	22
WICHITA	19	21	31
KENTUCKY			
COVINGTON	59	65	8
LEXINGTON	30	39	21
LOUISVILLE	47	68	23
LOUISIANA			
ALEXANDRIA	112	198	137
BATON ROUGE	123	232	220
LAKE CHARLES	127	220	247
NEW ORLEANS	132	254	255
SHREVEPORT	116	202	154
MAINE			
CARIBOU	0	0	0
PORTLAND	0	0	0
MARYLAND			
BALTIMORE	58	59	0
MASSACHUSETTS			
BLUE HILL OBS R	48	48	0
BOSTON	43	43	0
WORCHESTER	37	37	0
MICHIGAN			
ALPENA	18	18	0
DETROIT	37	37	0
DETROIT METRO	30	30	0
FLINT	20	20	0
GRAND RAPIDS	27	27	0
HOUGHTON LAKE	13	13	0
LANSING	25	25	0
MARQUETTE U	3	3	0
MUSKEGON	15	15	0
SAULT STE MARIE	3	3	0
MINNESOTA			
DULUTH	0	0	0
INTERNATIONAL FALLS	0	0	0
MINNEAPOLIS	14	14	0
ROCHESTER	9	9	0
ST CLOUD	5	5	0
MISSISSIPPI			
JACKSON	76	145	163
MERIDIAN	36	77	159
MISSOURI			
COLUMBIA REGIONAL	22	22	22
KANSAS CITY	22	22	21
ST JOSEPH	27	27	0
ST LOUIS	38	46	26
SPRINGFIELD	20	27	29
MONTANA			
BILLINGS	0	0	0
GLASGOW	0	0	0
GREAT FALLS	0	0	0
HAVRE	0	0	0
HELENA	0	0	0
KALISPELL	0	0	0
MILES CITY	0	0	0
MISSOULA	0	0	0
NEBRASKA			
GRAND ISLAND	9	9	8
LINCOLN	15	15	8
NORFORK	11	11	0
NORTH PLATTE	0	0	6
OMAHA	21	21	10
SCOTTSBLUFF	0	0	0
VALENTINE	1	1	0
NEVADA			
ELKO	0	0	0
ELY	0	0	0
LAS VEGAS	57	59	104
RENO	0	0	0
WINNEMUCCA	0	0	0
NEW HAMPSHIRE			
CONCORD	18	18	0
MT WASHINGTON OBS	0	0	0
NEW JERSEY			
ATLANTIC CITY	13	13	0
ATLANTIC CITY U	14	14	0
NEWARK	50	50	0
TRENTON U	52	52	0
NEW MEXICO			
ALBUQUERQUE	0	0	6
CLAYTON	0	0	0
ROSWELL	57	64	26
NEW YORK			
ALBANY	19	19	0
BINGHAMTON	21	21	0
BUFFALO	8	8	0
NEW YORK U	65	65	0
NEW YORK KENNEDY	9	9	0
NEW YORK LA GUARDIA	44	44	0
ROCHESTER	24	24	0
SYRACUSE	16	16	0
NORTH CAROLINA			
ASHEVILLE	0	0	6
CAPE HATTERAS R	48	59	17
CHARLOTTE	43	56	34
GREENSBORO	71	89	22
RALEIGH	71	105	27
WILMINGTON	94	171	77
NORTH DAKOTA			
BISMARCK	0	0	0
FARGO	0	0	0
WILLISTON	0	0	0
OHIO			
AKRON	16	16	0
CINCINNATI ABBE OB	50	63	17
CLEVELAND	23	26	0
COLUMBUS	23	26	0
DAYTON U	30	32	5
MANSFIELD	21	21	0
TOLEDO	31	31	0
YOUNGSTOWN	30	30	0
OKLAHOMA			
OKLAHOMA CITY	33	57	53
TULSA	28	41	60
OREGON			
ASTORIA	0	0	0
BURNS U	0	0	0
EUGENE	0	0	0
MEDFORD	0	0	0
PENDLETON	0	0	0
PORTLAND	0	0	0
SALEM	0	0	0
SEXTON SUMMIT R	0	0	0
PACIFIC AREA			
GUAM TAGUAC R	411	1499	1539
JOHNSTON	345	1333	1426
KOROR R	504	2016	1948
KWAJALEIN	496	1948	1983
MAJURO	442	1776	1929
PAGO PAGO	470	1861	1853
PONAPE R	459	1933	1885
TRUK MOEN ISLAND	483	1965	1941
WAKE	407	1517	1501
YAP R	450	1805	1908
PENNSYLVANIA			
ALLENTOWN	37	37	0
ERIE	10	10	0
HARRISBURG	47	47	0
PHILADELPHIA	64	64	0
PITTSBURGH	25	26	0
SCRANTON	46	46	0
WILLIAMSPORT	35	35	0
RHODE ISLAND			
BLOCK ISLAND	18	18	0
PROVIDENCE	40	40	0
SOUTH CAROLINA			
CHARLESTON	70	154	118
CHARLESTON U	119	212	144
COLUMBIA	87	157	86
GRNVLLE-SPRTNBRG	22	35	37
SOUTH DAKOTA			
ABERDEEN	0	0	0
HURON	0	0	0
RAPID CITY	0	0	0
SIOUX FALLS	2	2	0
TENNESSEE			
BRISTOL	14	16	18
CHATTANOOGA	19	20	48
KNOXVILLE	20	30	56
MEMPHIS	64	115	79
NASHVILLE	30	65	48
OAK RIDGE	6	7	24
TEXAS			
ABILENE	67	128	139
AMARILLO	13	13	20
AUSTIN	115	257	228
BROWNSVILLE	283	637	655
CORPUS CHRISTI	265	544	437
DALLAS FT WORTH	52	142	119
DEL RIO	198	372	344
EL PASO	71	75	62
GALVESTON	136	202	256
HOUSTON INTERCON	110	233	232
LUBBOCK	45	46	49
MIDLAND	68	99	94
PORT ARTHUR	133	230	243
SAN ANGELO	66	107	102
SAN ANTONIO	130	314	257
VICTORIA	186	334	306
WACO	81	186	109
WICHITA FALLS	54	114	113
UTAH			
MILFORD	0	0	0
SALT LAKE CITY	0	0	0
WENDOVER	0	0	5
VERMONT			
BURLINGTON	24	24	0
VIRGINIA			
LYNCHBURG	57	60	[illegible]
NORFORK	102	127	18
RICHMOND	99	116	18
ROANOKE	52	61	10
WALLOPS ISLAND	16	16	0
WASHINGTON			
OLYMPIA	0	0	0
QUILLAYUTE	0	0	0
SEATTLE	4	4	0
SEATTLE-TACOMA	8	[illegible]	0
SPOKANE	0	0	0
STAMPEDE PASS R	0	0	0
WALLA WALLA U	0	0	10
YAKIMA	0	0	0
WEST INDIES			
SAN JUAN P.R.	413	1487	1335
WEST VIRGINIA			
BECKLEY	38	40	0
CHARLESTON	58	76	21
ELKINS	1	1	0
HUNTINGTON	51	76	21
PARKERSBURG U	49	65	8
WISCONSIN			
GREEN BAY	8	8	0
LA CROSSE	5	5	0
MADISON	14	14	0
MILWAUKEE	24	24	0
WYOMING			
CASPER	0	0	0
CHEYENNE	0	0	0
LANDER	0	0	0
SHERIDAN	0	0	0

STORM SUMMARY

APRIL 1976

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				◊ ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS
Alabama												4																	
Alaska *																													
Arizona									4			4																	
Arkansas	7	3			4			?	?			3																3	
California ◇																													
Colorado	4	3			?			?	?			?	?			?	?			?	?							?	?
Connecticut																3													
Delaware *																													
Florida	4	2		2	5				4		3	4																	
Georgia	1	1			4							4				5													
Hawaii																												4	
Idaho																				4									
Illinois	3	2		2	5					1		5			1	3													
Indiana *																													
Iowa	2	2			5			4		1	5	5				3												4	3
Kansas	7	4		4	6			4	4	1	1	6	?			4													
Kentucky	1	1			5			4	3																				
Louisiana	1	1	1	27	6			?	?			4	?																
Maine																												6	
Maryland & DC	1	1			5											4													
Massachusetts																3												4	
Michigan	4	3		1	6			2				°6	C		2	4												°4	C
Minnesota	2	2			5			4	4			6	5			4											1		
Mississippi	3	1		3	6							4	?															4	?
Missouri	1	1						5	5							4													7
Montana *																													
Nebraska	5	3			5			5	6			6				3													
Nevada *																													
New Hampshire *																													
New Jersey *																													
New Mexico	1	1		2	4			4	6																				
New York																												7	C
North Carolina											3	5																	6
North Dakota																				?									
Ohio	1	1			3	1	1	?4	C		2	°6	C			?4	C											°5	C
Oklahoma	7	2		8	6			?	?	4	1	4			3	4													
Oregon											1	?	?																
Pacific																												6	C
Pennsylvania	1	1			3			1	1			5				5												3	
Puerto Rico																											1	5	C
Rhode Island *																													
South Carolina *																													
South Dakota										1	3	6																	
Tennessee	1	1						5			10	4				4													
Texas	53	12		14	6			?	?	13		7		1	1												2	6	6
Utah												5																	4
Vermont																												°6	C
Virginia	1	1			3							4				3													
Virgin Islands *																													
Washington												3				3													
West Virginia								?	?							5													5
Wisconsin	1	1			4											4												5	C
Wyoming	1	1			4																								

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

APRIL 1976

Herbert J. Thompson, Office of Hydrology

The major flooding on the Souris River in North Dakota reached its climax during April with new record stages at all points. Losses, amounting to more than $8 million, were held to a minimum by flood protection efforts made possible by early warnings. One life was lost.

Snowmelt runoff also caused flooding across the rest of the northern tier of states from Minnesota to Maine---the most serious being in the Lake Champlain Drainage and Hudson River Basin in New York and the Aroostook River in Maine.

The major flooding of March continued into April in the East Gulf of Mexico Drainage with revised loss estimates exceeding $9 million. In the Missouri Basin flash flooding in Lincoln County, Kansas and stream flooding on several tributaries in northern Missouri caused losses of more than $1 million. Losses in the upper Sabine and Trinity River Basins in Texas approached $3 million.

Significant flooding occurred on several Mississippi River tributaries in Iowa, on the upper Mississippi from Keithsburg to Chester, IL, and in the Guadalupe Basin in Texas where two lives were lost. Severe urban flooding occurred in Houston, TX.

The more significant hydrologic events are discussed in greater detail below.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	HUDSON BAY DRAINAGE		
Souris River	The major flooding which began at some points on the Souris late in March continued into April and by the 11th all points were above flood stage and continued above into May. The flooding was caused by rapid melt and runoff of a heavy snow cover which contained water equivalents of up to nearly 7 inches in the lower portion of the basin and up to more than 5 inches in the Canadian headwaters. Unusually warm temperatures occurred with daily maximums in the low 60s by the 8th. An early crest occurred at Westhope, ND, the lowermost station, on the 11th due to the heavy snow cover in that area. The second crest at Westhope on the 27th was caused by flow from upstream. Both crests at Westhope, where the maximum flooding occurred, were more than 9 feet over flood stage. At Minot, ND, which is protected by levees, crests were more than 7 feet over flood stage. Although water reached to within 4 inches of the top of the levee at the upstream end of the levee system and 12,000 people were evacuated as a precautionary measure, the levees held and minimal damage occurred at Minot. Early warnings and forecasts of flooding, more than 6 weeks in advance of the event, permitted the reinforcement and elevation of the existing levee system, preventing losses of $66.5 million as estimated by the Corps of Engineers. Actual damages have been estimated at $2,419,000 with an additional expenditure of $5.8 million for flood protection. More than 200,000 acres were flooded in North Dakota. Crest stages exceeded modern records at all points along the Souris. However, the U.S. Geological Survey reports a crest of about 23.0 feet at Minot 4 NW in 1904, the only station for which data of that flood are available. A crest 3 feet higher	1	8,219

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	HUDSON BAY DRAINAGE-Cont'd		
	than the 1904 flood is believed to have occurred in Minot in 1881 or 1882. Tabulated below are recent flood crests for the Souris River.		

STATION	1976	1975	1969
Sherwood	25.15	23.61	24.70
Foxholm 3 E	16.86	15.69	15.84
Minot 4 NW	21.27	20.35	20.36
Minot (Broadway Bridge)	1556.08	1554.79	1555.4
Logan	38.28	37.1	37.1
Sawyer	26.17	23.7	23.5
Velva	1509.9	1508.2	1508.0
Verendrye	18.1	16.9	17.1
Bantry 8 E	14.51	13.9	13.8
Westhope 7 NE	19.19	16.5	17.6

Red River of the North Basin	The spring snowmelt runoff flooding which started in late March continued into April with crests on many streams occurring early in April. Flooding had ended by the 9th on tributary streams and by the 11th on the Red. Flooding was generally rather minor. The Turtle River crested 6.5 feet over flood stage at Manvel, ND, the Red Lake River 4.5 feet over flood stage at Crookston, MN, and the Wild Rice and Pembina Rivers crested 3.2 feet over flood stage at Hendrum, MN, and Neche, ND, respectively. On the Main Red River Flooding occurred at Fargo, ND, and from Grand Forks down to below Drayton. The maximum flooding was at Grand Forks, 6.6 feet over flood stage. Damage was small due to good forecasts, the degree of flooding and the season of the year.	0	N.A.
	GREAT LAKES-ST. LAWRENCE DRAINAGE		
Great Lakes Drainage in Lower Michigan	Flooding continued from March along the Muskegon River ending by the 4th. Crests were in March. An intense storm on the 24th-25th resulted in rainfall amounts of 2.5 to over 3 inches with minor flooding on several streams. The Clinton River crested about 2 feet over slood stage at Fraser. Crests less than 0.5 foot over flood stage occurred on the Rogue, Little Muskegon, White, Chippewa, and Saginaw Rivers. Severe coastal flooding resulted from this storm in Saginaw Bay and along the western shore of Lake Erie in Monroe County. Damage was estimated at $790,000 by the Corps of Engineers.	0	N.A.
Lake Ontario Drainage in New York State	Urban and flash flooding was reported in the Syracuse area on the 16th due to nearly 3 inches of rain, of which 2 inches fell in a 3-hour period. On the 26th-27th rains of about 1.5 inches falling on saturated ground caused minor flooding along Tonawanda Creek and its tributary Ellicott Creek and on Black and Oatka Creeks in the Genessee River Basin. Crests were less than	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	GREAT LAKES-ST. LAWRENCE DRAINAGE-Cont'd		
	a foot over flood stage.		
Lake Champlain Drainage	The spring snowmelt runoff began in late March and was augmented by more than 2 inches of rain on the night of March 31-April 1. This rain fell on a heavy dense snowpack at the higher elevations which resulted in widespread flash flooding on smaller streams. Otter Creek crested more than 3 feet over flood stage at Center Rutland, VT, and the Winooski River crested just below flood stage at Montpelier, VT. Widespread damage occurred along the shores of Lake Champlain from both flooding and wave action. The crest of 101.6 feet was the highest since 1903 (the highest since records began), and only 0.2 feet lower. According to the US Geological Survey the Maximum known elevation since at least 1827 was 102.1 feet in 1869.	0	N.A.
	ATLANTIC SLOPE DRAINAGE		
St. John River Basin (Maine)	Snowmelt runoff occurred about three weeks earlier than normal this spring in northern Maine, aided by about 2 inches of rain on the 1st-2d. Serious flooding was reported in the Aroostook River Basin, a St. John tributary. The town of Masardis was evacuated on the 4th, the downtown section of Fort Fairfield was flooded, and Rt. 164 was flooded by up to 3 feet of water between Washburn and Presque Isle. Minor flooding occurred on the St. John River at Fort Kent. Damage was primarily in Aroostook and Penobscot Counties with 290 residences and 58 commerial buildings affected.	0	859
Connecticut River Basin	Snowmelt and rain late in March caused some flooding in the upper portion of the basin, but streams were below flood stage although still high at the beginning of April. Heavy rain on the 1st totaled 1 to 1.5 inches over the central and upper portions of the basin with a 2.5 inch center over the White River tributary. The White River crested just below flood stage, but nearly 3 feet of flooding occurred on the Passumpsic River at Passumpsic, VT. More than 5 feet of flooding occurred on the Connecticut River at White River Junction, VT, over 4 feet at Montague City, MA, and minor flooding at Holyoke, MA. The lower Connecticut was above flood stage at the beginning of the month. The storm of the 1st with rainfall amounts of 2 to 2.5 inches over the western portion and 1 to 1.5 inches over the eastern portion resulted in 6.5 to 5.5 feet of flooding from Hartford to Badkin Rock, CT. Although these significant overflows occurred damage was light due to the season of the year.	0	N.A.
Hudson River Basin	The annual snowmelt runoff in late March combined with heavy rains of March 31-April 1, which fell on a high water content snowcover remaining at higher elevations to cause widespread flash flooding over the northern portion of the Mohawk Basin.	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE-Cont'd		
	Flooding was most serious in Fulton and Saratoga Counties. The Mohawk River did not exceed flood stage, however. Severe flooding occurred along the Schroon River. The dam at the Warrensburg Board and Paper Mill failed with extensive damage to the plant. The crest of 9.7 feet as determined from a high water mark was the highest since 1953 at the Riverbank, NY, gage site, where flood stage is 7 feet, State Highway 418 was closed and a number of families were evacuated. Flooding also occurred on the upper Hudson River above Troy, NY, with more than 3 feet of flooding at Hadley, NY.		
South Coastal Drainage, Carolinas and Georgia	The flooding of late March continued on portions of a few streams but generally ended by April 2. These streams were the Broad River at Blair, SC, the Ogeechee at Eden, GA, and the Altamaha at Charlotte, GA. Flooding persisted on the lower Savannah River past the middle of the month. Lowland flooding on the Congaree River below Columbia, SC, crested near flood stage at St. Matthews, SC, on the 2d and 3d. April was an extremely dry month with monthly totals of less than 0.25 inch reported at many points in the Carolinas. It was the driest April since 1904 in North Carolina. In South Carolina and Georgia heavy rains of up to 5 inches on the 30th broke one of the severest drouths on record.	0	G
	EAST GULF OF MEXICO DRAINAGE		
Appalachicola River Basin	The flooding which began on March 17 continued into April, ending on the 9th. The major damage occurred on Peachtree Creek in March. About 2,400 acres of low lying cropland and 10,000 acres of woodland were flooded. Tabulated below are estimates of damage in the basin as estimated by the Corps of Engineers.	0	R 1,365

March/April Floods
Estimate of flood damage in the Apalachicola River Basin[1/]
(In $1,000's)

Damage Category	Rivers		
	Apalachicola	Chattahoochee[2/]	Peachtree Creek
Crops	$ -	$ 121	$ -
Woodland	3	1	-
Farm Property	-	105	-
Roads and railroads	-	-	-
Urban	-	-	1,135
Sub-Total	$ 3	$ 227	$ 1,135
		Basin Total	$ 1,365

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)

EAST GULF OF MEXICO DRAINAGE-Cont'd

1/ Only minor lowland lowland flooding occurred along the Flint River.
2/ Lake Sidney Lanier Dam operating.

Alabama-Coosa River Basin

Flooding had generally ended in the Coosa River Basin by April 1. However, late March rainfall brought Logan Martin Reservoir again over flood stage with a peak pool elevation of 471.5 feet, on the 3d the same as that reached in March and 6.5 feet over flood stage. — Lives Lost: G — Property Damage: R 1,902

Flooding from the late March rainfall continued on the upper Cahaba River at Centerville, AL, until April 2 and crested downstream at Marion Junction, AL, on the 3d, 2.5 feet over flood stage. Flooding was not as serious as that earlier in March. Rainfall at Birmingham, AL, for the March 28-31 period totaled more than 4 inches.

Flooding continued on the lower Alabama River from March with a second crest caused by the late March rainfall of more than 13 and 10 feet over flood stage at Millers Ferry and Claiborne, respectively. On the upper Alabama flooding resumed on the 1st due to late March rain with crests 5 to nearly 8 feet over flood stage. Crests along the Aalbama River were significantly higher than those of March, by more than 3 feet in some cases. About 50,000 acres of cropland and 99,000 acres of woodland were inundated by the March-April flooding. Among the urban areas affected were Montgomery, AL. on the Alabama River and Rome, GA, on the Etowah River with damage of $70,000 and $43,000, respectively. Tabulated below are estimates of damage.

March/April Floods
Estimate of flood damage in the Alabama-Coosa River Basin
(in $1,000's)

Damage Category	Alabama	Coosa	Cahaba	Oostanaula	Etowah & Coosawattee 1/	Tallapoosa
Crops	$1,030	$ 37	$ 75	$ 94	$ 41	$ 19
Woodland	40	1	2	1	-	1
Farm Property	196	15	14	62	33	18
Roads and Railroads	55	3	3	32	12	5
Urban	70	-	-	-	43	-
Sub-Total	$1,391	$ 56	$ 94	$ 189	$ 129	$ 43
					Basin Total	$ 1,902

1/ Allatoona Dam and Carters Dam operating for flood control.

Tombigbee-Black Warrior River Basin

Flooding from the heavy rains of late March continued into April in the upper and middle portions of both rivers and was rather minor with crests of about 1 to 3 feet over flood stage. More serious flooding occurred on the lower Black Warrior River with crests 6 and 10 feet over flood stage at Tuscaloosa Lock and Dam and Warrior Lock and Dam, respectively. On the lower Tombigbee River flooding continued from the middle of March with a second higher crest at Demopolis Lock and Dam on the 5th, — Lives Lost: 0 — Property Damage: R 3,059

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)

EAST GULF OF MEXICO DRAINAGE-Cont'd

13 feet over flood stage. The major crest at Coffeeville occurred on the 2d, 15 feet over flood stage.

About 94,000 acres of cropland and 249,000 acres of woodland were affected by the March-April flooding in this basin. The towns of Columbus, MS, and Demopolis, AL, on the Tombigbee River and Tuscaloosa, AL, on the Black Warrior River received damage estimated at $65,000. Tabulated below are estimates of damage in the basin as estimated by the Corps of Engineers.

March/April Floods
Estimate of flood damage in the Tombigbee-Black Warrior River Basin
(In $1,000's)

	Rivers			
Damage Category	Tombigbee	Black Warrior	Tibbee	Noxubee
Crops	$ 661	$ 761	$ 51	$ 169
Woodland	76	25	3	10
Farm property	427	501	8	104
Roads and railroads	154	21	2	21
Urban	34	31	-	-
Sub-Total	$ 1,352	$ 1,339	$ 64	$ 304
		Basin Total		$3,059

Mobile-Tensaw River	Flooding occurred on these rivers during the first half of April with a crest about 1.5 feet over flood stage at Saraland, AL, on the 8th. The Mobile River is formed by the junction of the Tombigbee and Alabama Rivers. It is in the tidewater area and flooding is not frequently reported there.	0	N.A.
Pascagoula River Basin	Flooding resumed in the basin in late March and early April as a result of heavy rainfall during the period of March 29-30, which totaled 4.6 inches at Meridian, MS, in the headwaters of the Chickasawhay River. From 8 to 11 feet of flooding was reported on the upper Chickasawhay. From 5 to 6 feet of flooding occurred on Tallahala Creek at Laurel, MS, and the Leaf River at Beaumont, MS. The Pascagoula River crested 2.4 feet over flood stage at Merrill, MS. About 7,400 acres of cropland and 93,700 acres of woodland were inundated by the March-April flooding. The municipalities of Merrill on the Pascagoula River, Shubuta on the Chickasawhay River, Laurel on the Tallahala Creek, and Meridian on Okatibbee Creek were all affected by flooding with total loss estimated at $327,000. Tabulated below are estimates of loss from the March-April flooding.	0	737

March/April Floods
Estimate of flood damage in the Pascagoula River Basin
(In $1,000's)

Damage Category	Pascagoula	Chickasawhay	Tallahala	Okatibbee[1/]
Crops	$ -	$ 32	$ 24	$ 80
Woodland	22	11	7	5

Basins and Streams	FLOOD EVENT		Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	EAST GULF OF MEXICO DRAINAGE-Cont'd			
Farm Property	-	31	40	32
Roads and Railroads	-	24	72	30
Urban	26	3	291	7
Sub-Total	$ 48	$ 101	$ 434	$ 154
			Basin Total	$ 737

1/ Okatibbee Dam operating for flood control

Pearl River

Flooding which began early in March along most of the Pearl continued into April with crests the first week of April caused by the heavy rains of late March. The crest of 35.8 feet at Jackson, MS (Flood stage 18 feet) was the highest since the record stage of 37.2 feet in December 1961. At points above Jackson from 5 to 7 feet of flooding occurred while downstream crests ranged from about 9 feet over flood stage at Monticello, MS to 5 feet over flood stage at Pearl River, LA.

The March-April floods inundated approximately 34,800 acres of cropland and 140,800 acres of woodland along the Pearl River. In the vicinity of Jackson, MS, urban damage totaled $138,000 outside the area protected by levees.

Data on losses furnished by the Corps of Engineers are tabulated below:

March/April Floods
Estimate of flood damage in the Pearl River Basin 1/
(In $1,000's)

Damage Category	Pearl River
Crops	$ 471
Woodland	63
Farm Property	614
Roads and railroad	753
Urban	138
Total	$2,039

1/ The Pearl River was the only river in the Pearl River Basin affected by the March-April flooding.

0 R2039

UPPER MISSISSIPPI BASIN

Minnesota, Wisconsin, Northeastern Iowa and Northern Illinois Streams

Flooding from late March rainfall and snowmelt continued into April on several streams. The Chippewa River crested more than 2 feet over flood stage at Durand, WI on the 2d. Crests about a foot over flood stage occurred on the Black River at Galesville, WI, and at Merrill and Portage, WI, on the Wisconsin River. April rainfall was well below normal over the Minnesota and northwest Wisconsin portions of the basin, but above normal over the rest of the area and from 2 to over 4 inches above normal over a 40-mile wide area from Decorah, IA, to Wisconsin Dells, WI. Most of this rain occurred between the 15th and 25th with 2 to 3 inches on the 17th-18th and 24th-25th. Several streams exceeded

0 N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	UPPER MISSISSIPPI BASIN-Cont'd		
	flood stage as a result with the lower Kishwaukee River in Illinois and the lower Wapsipinicon River in Iowa cresting more than a foot over flood stage and the Green River cresting nearly 5 feet over flood stage at Geneseo, IL. Minor flooding occurred on the lower Kickapoo River in Wisconsin.		
Southeastern Iowa Streams	Significant flooding occurred on the 18th and 19th on the Iowa, South Skunk, North, Middle, and South Rivers. Widespread flooding also began on the 24th on the Iowa, lower Cedar, Skunk, and in the Des Moines River Basin from the vicinity of the city of Des Moines downstream to confluence with the Mississippi. The flooding was due to a band of heavy rain that fell across the area from southwest to northeast on the 17th and early 18th. Over two inch-rains fell in a 50 mile wide band from southwest of Des Moines across the Iowa River Basin to the upper Cedar Basin. Four-inch amounts fell in a small area from the Des Moines vicinity to northeast of Ames. One to two-inch rains followed over most of the area on the 20th and 21st. Heavy rains on the 23d and 24th over the area with over four inch amounts were common from about 30 miles southeast of Des Moines to the mouth of the Des Moines River in the southeast corner of the State. The lower Cedar River crested nearly 4 feet over flood stage on the 26th. On the Iowa River crests ranged from about 3.5 feet over flood stage at Marshalltown to about one foot over flood stage at Wapello. The English River tributary to the Iowa crested more than 4 feet over flood stage at Kalona. From 5 to 7 feet of flooding was reported along the Skunk River. In the Des Moines Basin the North, Middle, and South River tributaries all exceeded flood stages by amounts of 3.5 to 5.5 feet. A crest nearly 9 feet over flood stage occurred on Cedar Creek at Bussey. The Des Moines River was over flood stage below Des Moines by amounts of 2 to over 5 feet. The Fox River, which drains extreme southeast Iowa, crested 5 feet over flood stage at Wayland, MO. Flooding was generally confined to farmland with minimal damage at this season.	0	N.A.
Illinois River	Flooding on the lower Illinois River which began in February and peaked in March ended on April 9. The storm of the 24th-25th with rainfall amounts of over 4.5 inches in the middle and upper portions of the basin caused a resumption of flooding. Crests of about 1 to 2 feet over flood stage occurred on the upper Illinois with minor flooding on the upper Fox River tributary. Flooding on the lower Illinois continued into May with crests in May.	0	N.A.
Mississippi River Main Stem	The annual spring runoff produced scattered minor flooding on the Mississippi from Wabasha, MN, down to Keithsburg, IL. Crests were less than a foot	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	UPPER MISSISSIPPI BASIN-Cont'd		
	over flood stage except at Dubuque, IA, and Keithsburg, where crests were slightly more than a foot over flood stage. Heavy inflow from Iowa tributaries and the Illinois River due to the storm of the 24th-25th caused flooding from Keithsburg down to Chester IL, except in the St. Louis area, beginning on the 26th. Maximum flooding was in the Quincy, IL, to Winfield, MO, reach with crests 5 to 6 feet over flood stage. Flooding continued into May at and below Gregory Landing, MO.		
	MISSOURI BASIN		
Big Hole River	Minor flooding was reported on the Big Hole River at Melrose, MT, after an ice jam broke loose upstream.	0	N.A.
102 and Platte Rivers	Significant agricultural flooding occurred along these streams in northwest Missouri the latter half of April. Rains of 1.5 to 3 inches on the 18th-19th, 1 to 2 inches on the 21st-22d, and up to 3 inches on the 24th-25th were reported at first order stations near the basins. Locally heavier amounts probably occurred. On the 102 River the major crests stage was not determined, but 13,000 acres of corn were flooded in Taylor County, Iowa and Nodaway, Andrews, and Buchanan Counties in Missouri. Along the Platte River 10,000 acres of corn were flooded in Buchanan and Platte Counties. A crest 4 feet over flood stage was reported at Agency with flooding downstream to the mouth at Platte City, where flood stage has not been determined. Most of the flooded fields will have to be reseeded.	0	540
Solomon River Basin	Severe flash flooding was reported in Lincoln County, Kansas with 7,000 acres inundated. Crop damage was estimated at $50,000 and other agricultural damage at $25,000. Additional losses, mostly road and culvert washouts, amounted to $28,000. No reporting river stations went over flood stage.	0	103
Big Blue River Basin	Three periods of flooding occurred on the Black Vermillion River during April with crests in the range of 4-6 feet over flood stage at Frankfort, KS. Rainfall amounts of over 2.5 inches on the 16th-17th, 2 to 3 inches on the 19th-20th and similar amounts on the 24th-25th caused the flooding. No other streams exceeded flood stage.	0	N.A.
Grand and Chariton River Basins	Extensive lowland flooding occurred on the lower Grand River in north central Missouri at and below Chillicothe. Crests were in the range of 5 to 9 feet over flood stage. Three periods of rainfall of 2 to 3 inches on the 17th-18th, 20th-21st, and 24th-25th caused sharp rises on the middle and upper Grand, the upper Thompson River tributary and upper Chariton River with as many as three crests over flood stage by amounts up to about 4 feet. However, newly seeded fields were not covered long enough to cause serious damage in these reaches.	0	429

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

APRIL 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	MISSOURI BASIN-Cont'd		
	The lower Grand River from Sumner to Brunswick was over flood stage for 10 days. More than 17,000 acres were inundated in the Grand and Chariton Basins.		
	OHIO BASIN		
	Rainfall was much below normal over most of the basin except for the upper Allegheny Basin. The lowest April precipitation totals of record occurred at several stations. Many stations received less than an inch total for the month. The only flooding reported was on the Green River in Kentucky and the upper French Broad River in the Tennessee Basin in North Carolina where flooding from heavy rains of late March continued the first few days of April.		
	WHITE BASIN		
Cache and White Rivers	Flooding on the Cache River which began in February ended at Patterson, AR, on the 11th. Locally heavy rain on the 20th-21st and 24th-25th caused minor flooding on the White River at Augusta, AR. This caused further delay in planting of crops in the affected areas.	0	N.A.
	ARKANSAS BASIN		
Arkansas Basin in Kansas	Rainfall amounts over south central Kansas of 1 to 2 inches on the 16th-17th and 2 to 4 inches on the 19th-20th were followed by the severe storm of the 27th-28th with amounts of 3.5 to 4.5 inches over the Little Arkansas Basin which produced a crest nearly 6 feet over flood stage at Sedgewick, KS. Crop damage was estimated at $5,000 with 1,000 acres affected. Highways in the vicinity were closed. The same storm deposited 2 inch amounts over the Cottonwood River Basin with flooding on the lower Cottonwood of over 4 feet at Plymouth and over 2 feet downstream at Emporia. No losses were reported. The Arkansas River crested about 2 feet over flood stage at Arkansas City.	0	N.A.
Arkansas Basin in Eastern Oklahoma	Monthly rainfall totals of 5 to nearly 7 inches occurred over eastern Oklahoma with most falling on the 15th through the 21st. Amounts of over 3 inches on the 20th and over one inch the 21st resulted in significant flooding on several smaller streams in the basin. Crests 3 to 4 feet over flood stage occurred on Polecat Creek at Sapulpa and the Deep Fork at Beggs. From more than 9 to 7.5 feet of flooding was reported along the Illinois River and the Poteau River crested over 5 feet above flood stage. The heavy inflow caused the Arkansas River to exceed flood stage by 4.5 feet at Van Buren, AR.	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

APRIL 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	RED RIVER BASIN		
Red River Tributaries in Oklahoma	The rainfall of the 19th-20th which affected streams in the Arkansas Basin also caused significant flooding on several Red River tributaries. The Blue River crested 9 feet over flood stage at Blue, and Clear Boggy and Muddy Boggy Creeks both crested about 4.5 feet over flood stage at Caney and Farris, respectively.	0	N.A.
Sulphur River	Rains of about 2 inches from the storm of the 19th-20th caused considerable lowland flooding along the Sulphur River. Crests of 2.5 feet and 5.5 feet over flood stage occurred at Hagansport and Naples, TX, respectively. Some grain crops were damaged and cattle had to be evacuated.	0	N.A.
	LOWER MISSISSIPPI BASIN		
Big Black River	Flooding which began the middle of March continued into April. The heavy rains in late March of 3 inches or more caused a third crest at West, MS, on the 3d, 7.5 feet over flood stage. Downstream at Bovina, MS, the major crest occurred on the 2d, more than 10 feet over flood stage.	0	N.A.
	WEST GULF OF MEXICO BASIN		
West Gulf Tributaries in Louisiana	Flooding from heavy rains of late March continued on the upper Calcasieu River until the 6th with the crest approaching 3 feet over flood stage on the 1st. Minor flooding occurred on the Lower Atchafalaya River on the 14th-17th.	0	N.A.
Sabine River Basin	Serious flooding occurred in the upper Sabine River Basin. The monthly rainfall totals of 7.5 to 11.5 inches nearly all occurred during a 24-hour period from noon on the 19th to noon on the 20th. The Lake Fork crested more than 4 feet over flood stage at Quitman, TX, and from 5 to 7 feet of flooding occurred on the upper Sabine from Emory to Longview. Most damage was in Rains County where 36,000 acres were inundated for an extended period, making the replanting of crops necessary with losses of $70,000. The 20 houses flooded caused losses of $70,000 and damage to other farm structures was estimated at $47,500. Cattle lost were valued at $50,000.	0	237
Neches River Basin	Minor flooding continued from March on the Angelina River ending on the 12th with a crest less than 3 feet over flood stage at Lufkin, TX, on the 4th. About 2 inches of rain over the basin caused a resumption of flooding on the 30th which extended into May with some problems to the lumber industry. On the Neches, lowland flooding continued from March at Diboll, TX, cresting less than 2 feet over flood stage on the 3d and ending on the 8th. About 2 inches of rain caused flooding at Alto, TX, beginning on the 30th and continuing into May.	0	N.A.
Trinity River Basin (Texas)	During the 24-hour period from noon on the 19th to noon on the 20th the upper Trinity Basin re-	0	2,598

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	WEST GULF OF MEXICO BASIN-Cont'd		
	ceived rainfall which may exceed the 100-year frequency. Terrell, TX, reported a 24 hour total of 13.12 inches and a five-day total of 15.02 inches for the 16th-20th. Terrell appears to have been near the center of the heaviest rainfall. A storm total rainfall in excess of three inches extended out from Terrell and covered most of 12 counties in the upper Trinity River Basin resulting in substantial flooding. Tributaries in the headwaters of the Trinity crested 2 to 4 feet over flood stage. These include the East Fork, and Chambers and Richland Creeks. Flooding on the upper Trinity extended down to Long Lake with maximum flooding of 13 feet at Trinidad. Crests were 7 to 8 feet over flood stage at other points. Damages were to pastures, row crops, fences, bridges, cattle, levees, and farm storage buildings. Five farm houses were flooded in Kaufman County at an estimated loss of $25,000. Over 50,000 acres were inundated for an extended period of time of up to 30 days. The estimate of damages to crops during this period was $1,365,000. In Ellis County over $500,000 in damages were inflicted on the levee systems on Red Oak, Bear, and Ten Mile Creeks. Other agricultural damage to buildings, equipment, livestock, and levees and to public property, including roads, totaled more than $700,000. On the lower Trinity flooding began the 24th and resulted from 2-inch rains and releases from Lake Livingston necessitated by the upstream runoff.		
San Jacinto River Basin	Severe urban flooding occurred the afternoon of the 19th in the Houston, TX, area. The Intercontinental Airport received 8 inches of rain and amounts of 5.80 and 5.45 inches were reported in the area. Damage was to homes and cars.	0	100
Brazos River Basin	From 2 to 3 feet of flooding occurred along the Navasota River the latter part of April in response to heavy rains on the 16th-18th. A storm total of 4.8 inches was reported north of Bryan, TX. On the 28th rains of 2 to 3 inches caused flash flooding in the headwaters of the Little River and runoff combined with reservoir releases to cause minor flooding at the town of Little River. Downstream at Cameron, TX, the gage was out and the crest stage was not obtained.	0	N.A.
Colorado River Basin (Texas)	Twin Buttes Reservoir at San Angelo, TX, now contains 185,000 acre-feet of water which is the most its ever contained since completed in 1963. This reservoir has been gaining water at the rate of 2,000 acre-feet a month since 1974. This is due to the above normal inflow from the South Concho and Middle Concho Rivers caused by ground water from the torrential rains in September 1974. San Angelo now has a 10 year supply of water on hand.	0	0
Guadalupe River Basin	Flash flooding from extremely heavy rainfall occurred over portions of the basin on the 19th, with 10 inches over Goliad and Victoria Counties. Two	2	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	WEST GULF OF MEXICO BASIN-Cont'd		
	children were drowned in a car which attempted to cross a flooded bridge over Coleto Creek. A crest of 17.5 feet was reported at Schroeder, TX where flood stage has not yet been determined. Rainfall over the lower Guadalupe on the 16th-20th was 4-6 inches with crests of about 6 to 8 feet over flood stage.		
Nueces River Basin	Rainfall of 2 to 4 inches over the lower edge of the Balcones Escarpment of the 19th caused more than 3 feet of flooding at Derby, TX.	0	N.A.
	PACIFIC SLOPE DRAINAGE		
Snake River Basin	Two brief periods of significantly warmer temperatures caused some snowmelt and rapid but short-lived rises on smaller streams with minor flooding of low farmland on the Portneuf River around Pocatello. Several other streams rose to within one foot of flood stage but caused no significant problems. The Boise River at Boise ranged between 6.5 and 6.9 feet (compared to the 7-foot flood stage) for the last 10 days of the month. The Boise River is well regulated by a system of upstream dams, however. The high water here was a result of drawdown of these reservoirs in anticipation of the spring runoff. The Weise River (at the Weiser 10 ENE gage) was another stream which approached flood stage following one of the warm periods early in the month.	0	N.A.
	ALASKA		
Kenai Peninsula Streams	Flooding occurred on Anchor River at Anchor Point on the 29th due to high runoff, accelerated melt rates due to natural, albedo increasing dust from the January Mt. Augustine volcano eruption. Extensive aufeis which had formed in early winter when no snowcover existed, had filled stream channels in Anchor River and many southcentral streams, leaving no room in the river channel proper for spring runoff. Deep Creek and Staviski Creek were also out of banks at high stages on the 29th. The ice moved out of the Kenai River at Soldatna on the 26th and on the 30th the Copper River was clear of ice at Copper Center.	0	N.A.
Yukon River Basin	Near record temperatures in the Tanana basin caused a rapid snowmelt condition over the last few days of the month. Fairbanks recorded a high temperature of 69° for the month and Eilson AFB recorded 70°, highest in the interior for April. Last available ice measurements in the Chena river were taken April 24 and a thickness of 36.5 inches was recorded. Considerable softening of the ice was evident and some water had formed along the shores. The Tanana river began to open up as leads were visible the last week of the month. The snow pack in the Chena basin had been reduced	0	0

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

APRIL 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ALASKA-Cont'd		
	considerably by the warm temperatures by the end of the month and only a trace was visible at the lower elevations. Snow pack in the upper Yukon river basin had been reduced also and only a trace observed on the lower elevations by the 24th.		
	PUERTO RICO		
Culebrinas River	Heavy rainfall the afternoon of the 25th which totaled 4.17 inches at Lares in the northwestern Cordilleros caused flooding along the Culebrinas River with some damage to a bridge.	0	N.A.

G Included in Previous Months Figure

R Revision from Previous Months Figure

FLOOD STAGE DATA

APRIL 1976

River and station	Flood stage	Action stage dates From—	To	Crest Stage	Date
	Ft			Ft	
Foxholm, ND	16			16.6	Mar 24
	18	Mar 29	1/	25.1	
	21	11			
		Mar	1/	16.8	17
	14	Mar 26	1/	21.2	17
					18
		2	1/	38.2	
Sawyer, ND			1/	26.17	20
Velva, ND	MSL1505	Mar	1/	1509.9	20
	15	3	1/	18.1	
Towner, ND	52		1	56.65	22
	11	Mar 24	1	14.51	
Westhope 7 NE, ND	10	Mar	1	19.12 19.19	13 27
Buffalo River:					
	12	Mar 26	3	13.71	Mar 30
	17	Mar 26		20.22	Mar
Red Lake River:					
	15	1		19.45	
Turtle:					
Manvel, ND	10	Mar 27	7	16.51	Mar 31
	6	Mar 30		7.2	Mar 30
Park River:					
	12	3		14.06	
South Fork Two Rivers:					
	18.5	Mar 26		19.50	Mar 30
Two Rivers River:					
Hallock, MN	MSL802	2	2	802.0	2
Pembina River:					
	18	7		21.19	8
Red River of the North:					
	17	Mar 28	3	18.70	Mar 30
	28	Mar 31		34.58	
	28	1		32.17	5
Drayton, ND	32	3	11	35.00	7
GREAT LAKES-ST. LAWRENCE DRAINAGE					
Wolf:					
New London, WI		Mar 25	10	10.5	2
Rogue River:					
Rockford, MI		26	27	7.46	
Morley, MI	5	25	26	5.1	26
Muskegon:					
Evart, MI	12	Mar 26	3	14.04	Mar 29
	11	Mar	4	13.37	Mar
Whitehall, MI	6		26	6.33	25
Chippewa River:					
Mt. Pleasant, MI	6	28		8.0	28
Saginaw:					
Saginaw, MI	19	28	28	19.1	28

River and station	Flood stage	Action stage dates From—	To	Crest Stage	Date
	Ft			Ft	
GREAT LAKES-ST. LAWRENCE DRAINAGE-Cont					
Clinton River:					
Fraser, MI					
			26		
Oatka:					
Garbutt, NY			26	5.6	
Black:					
Churchville, NY	5	26			
Lake Champlain:					
Burlington, VT					
					5
Center Rutland, VT	7	1		10.16	2
ATLANTIC SLOPE DRAINAGE					
Aroostook:					
Washburn, ME	10			E11.8	
	18			20.2	4
		20	26	21.58	22
Penobscot:					
Kennebec:					
Skow Hegan, ME	35,000 c.f.s.	2			2
Augusta, ME	13	2		E16.2	
Anordscoggin:					
Gulf Island	35,000			40,600	
Pemigewasset:					
		1			1
Plymouth, NH	1	1		17.55	2
Passumpsic:					
	14	1	2	16.90	2
Ammonusuc:					
	10	1	2	11.46	1
Connecticut:					
White River Junction, VT	18			23.50	
North Walpole, NH	28			27.98	2
Montague City, MA	28			32.2	2
Holyoke, MA	9	3		9.4	3
Hartford, CT	16		8	22.47	4
Bodkin Rock, CT	8	Mar	8	13.5	4
				9.7	
Hudson:					
North Creek, NY	10	1	2	10.56	1
Hadley, NY	14	1	3	17.45	2
Saddle:					
		1		5.5	
Broad:					
Blair, SC	14	Mar 31	2	16.0	
Congaree:					
St. Matthews 17 NW, SC					2,3
Savannah:					
Millhaven-Wade 2 SE, GA		Mar 21			27
Clyo, GA		Mar 20			29

FLOOD STAGE DATA

	Flood stage	Above flood stage –dates		Crest	
		From	To	Stage	Date
Ogeechee:					
Eldora, GA	9	Mar	8	11	Mar 6-7
Claxton:					
Claxton, GA	15	Mar	28	#19.42	Mar 27
Apalachicola:					
Blountstown, FL	17	Mar	11	19.61	Mar 18
Etowah:					
Canton, GA	1	Mar	31	2.61	Mar 31
Oostanaula:					
Resaca, GA	13		1	24.1	1
Coosa:					
Logan Martin Reservoir, AL	460		1	471.5	1
Tallapoosa:					
Franklinton Water Level, AL	19		1	30.5	1
Cahaba:					
Centreville, AL	3	Mar	22	E30.0	Mar 31
Marion Junction, AL	9		1	38.5	3
Alabama:					
Montgomery, AL	29		1	42.7	1
Jones Bluff Lock & Dam, AL	107		1	E127.0	2
Selma, AL	45		1	51.2	1
Walter F. George Lock & Dam, AL	190	Mar	28	194.2	1
Claiborne, AL	45	Mar	17	50.1	1
East Fork Tombigbee:					
Fulton, MS	4	Mar	8	16.34	1
Tibbee Creek:					
Tibbee, MS	23	Mar	31	27.44	1
Noxubee:					
Macon, MS	9	Mar	30	28.43	1
Black Warrior:					
Searcy Lock and Dam, AL	189	Mar	30	194.4	Mar 31
Holt Lock and Dam, AL	140	Mar	30	142.6	Mar 31
Tuscaloosa Lock and Dam, AL	94	Mar	29	E53.0	1
Warrior Lock and Dam, AL	90	Mar	27	E40.0	1
Tombigbee:					
Amory, MS	20	Mar	8	22.6	1
Gainesville, AL	30	Mar	11	42.5	1
Demopolis Lock and Dam, AL	45	Mar	11	A61.2	1
Coffeeville Lock and Dam, AL	45	Mar	13	E58.0	1
Mobile:					
Saraland, AL	9		1	11.7	1
Tallahala Creek:					
Laurel, MS	14	Mar	9	18.7	1
Leaf:					
Hattiesburg, MS	12		1	21.5	2,
Beaumont, MS	20		1	25.10	4
Okatibbee Creek:					
Arundel, MS	1	Mar	7	9	#11.8 Mar 9
		Mar	16	15	#16.0 Mar 17
		Mar	21	5	#18.9 Mar 31
Chickasawhay:					
Enterprise, MS	20	Mar	27	5	31.14 1
Shubuta, MS	30	Mar	31	7	38.0 1
Waynesboro, MS	35		3	8	37.6 1
Pascagoula:					
Merrill, MS	22		3	10	24.4 3

	Flood stage	Above flood stage –dates		Crest	
		From	To	Stage	Date
Yockanookany:					
Ofahoma, MS	14	Mar	28	17.7	1
Pearl:					
Edinburg, MS	20	Mar	27	A25.2	2
Carthage, MS	24	Mar	11	24.0	Mar 11
Jackson, MS	18	Mar	8	35.8	2
Monticello, MS	19	Mar	14	28.15	2
Columbia, MS	17	Mar	17	24.0	2
Bogalusa, LA	15	Mar	19	#20.4	22
Pearl River, LA	11	Mar	15	21	1
UPPER MISSISSIPPI BASIN					
Chippewa:					
Durand, WI	11	Mar	18	5 13.3	1
Black River:					
Galesville, WI	11	Mar	31	4 12.94	1
Kickapoo:					
Steuben, WI	6		25	27 E 8.1	29
Wisconsin River:					
Merrill, WI	11	Mar	30	1 11.83	Mar 31
Portage, WI	17	Mar	31	5 18.1	1
Wapsipinicon River:					
Independence, IA	11		28	Mar 2 11.22	3
Kishwaukee River:					
Perryville, IL	10		27	12.4	28
Green River:					
Geneseo, IL	9		25	29 12.85	30
English River:					
Kalona, IA	14		24	27 17.34	28
Cedar River:					
Conesville, IA	9		21	17 #12.91	29
Iowa River:					
Marshalltown, IA	11		18	28 #17.44	19
					15.80 21
Marengo, IA	14		27	30 #17.51	25
Lone Tree, IA	15		26	26 #15.09	26
Wapello, IA	20		24	28 21.2	29
South Skunk River:					
Ames, IA	15		15	29 11.02	29
North Skunk River:					
Sigourney, IA	16		24	28 16.76	25
Skunk:					
Bright, IA	14		4	17 18.97	25
Augusta, IA	1		24	17 21.34	28
North River:					
Norwalk, IA	18		18	28 19.25	25
Middle River:					
Indianola, IA	19		18	18 #21.58	18
			24	25 22.51	24
South River:					
Ackworth, IA	19		16	18 23.25	18
			20	21 20.26	21
			24	25 24.50	24
Cedar Creek:					
Bussey, IA	16.5		24	25 25.8	24
Des Moines River:					
Eddyville, IA	15		24	25 #20.37	25
Ottumwa, IA	10		24	25 12.98	24
Keosauqua, IA	25		24	25 27.19	25

FLOOD STAGE DATA

	Flood Stage	Above flood stages		Crest	
		From	To	Stage	Date
	Ft			Ft	
Wayland, MO	15	24	26		25
Fox River:					
	6.5	26	30	6.8	27
Illinois River:					
		26	27	13.90	26
	20	26	29	22.30	27
	14		9	Mar	11
		27	1/	#16.6	11
Beardstown, IL	14	Feb 22	9	Mar	11
		26	1	#16.8	13
Meredosia, IL	32	Feb 25	4	#38.6	Mar 14
			11	33.2	May 1
Mississippi River:					
	16			15.03	5
	12	2	7	12.6	4
	13	1	7	14.19	5
	12	1	6	12.04	6
	18				18
	15	7	14	15.5	9
	17	7	13	15.4	9
	16	10	14	16.72	11
	11			11.1	11
Davenport, IA	15			14.85	11
	16	12	13	16.15	12
Keithsburg, IL	12	12	15	13.3	13
		26	1	13.59	28
Burlington, IA	15	26	1	16.0	29
	16	24	28	18.27	1
	16	24	1	#19.1	1
Quincy, IL	17	24	1	22.2	26
Hannibal, MO	16	24	1	#22.0	27
Louisiana, MO	15	24	1	20.5	27
	25	1	1/	#30.7	28
	26	26	1	#30.8	29
Grafton, IL	18	26	1/	21.9	30
	21	1	1/	23.5	30
	1	29	1	28.1	May 1
MISSOURI BASIN					
Big Hole River:					
Melrose, MT	6	13	15	6.75	14
One Hundred and Two River:					
Maryville, MO	14	17	18	14.06	18
		21	24	U	
Platte River:					
Agency, MO	20	18	23	22.78	21
		24	28	24.19	26
Platte City, MO		20	30	25.8	28
Black Vermillion River:					
	19	17	18	23.00	18
		21	21	25.05	21
		24	25	23.89	24
Thompson River:					
Davis City, IA	1	17	18	9.04	19
		20	21	9.91	20
		23	27	13.23	1
Grand River:					
Pattonsburg, MO	20	25	25	26.0	25
Gallatin, MO	21	19	19	21.0	19
		25	26	22.1	25

	Flood Stage	Above flood stages		Crest	
		From	To	Stage	Date
	Ft			Ft	
MISSOURI BASIN-Cont'd					
Grand River-Continued:					
	18	19	20	26.0	19
		21	1	26.4	1
		1	27	30.5	1
Sumner, MO	26	1	1	31.1	1
		24	1	34.83	27
Brunswick, MO	12	20	1	17.15	29
Chariton River:					
Chariton, IA	15	19	22	17.40	20
		23			
	24	24	25		1
Prairie Hill, MO	15	24	27		1
Missouri River:					
St. Joseph, MO	17	1	25	17.0	1
OHIO BASIN					
Green:					
Brownsville, KY	18	Mar 30	1	18.97	Mar 31
	17	1	1	#22.27	1
	1	Mar 30	1	#37.60	1
Rochester, KY (Upper)	18	1	1	#20.0	1
	33	1	1	35.0	2
Calhoun, KY (Upper)	23	1	1	23.0	1
French Broad:					
Rosman, NC	8	Mar 31	1	1	Mar 31
WHITE BASIN					
Cache:					
	7	Feb 19	11	A 8.7	Mar 11
	26	27	30	27.0	28
ARKANSAS BASIN					
Little Arkansas:					
Sedgwick, KS	18	28	May 1	23.8	28
Polecat Creek:					
Sapulpa, OK	21	20	21	24.60	21
Cottonwood:					
	28	28	May 2	#32.31	29
Emporia, KS	20	29	May	22.45	30
Illinois:					
Watts, OK		19	1	1	20
Tahlequah, OK	11	20	1	1	20
Deep Fork:					
Beggs, OK	18	21	28	21.1	24
Poteau:					
Poteau, OK	24	20	1	1	20
Panama, OK	24	1	1	1	1
Arkansas:					
Arkansas City, KS	17	29	May 1	18.94	30
Van Buren, AR	22	20	23	26.55	1
RED RIVER BASIN					
Blue:					
Blue, OK	21	20	22	30.0	21
Clear Boggy Creek:					
Caney, OK	19	19	23	23.45	21
Muddy Boggy Creek:					
Farris, OK	1	19	1	1	20

FLOOD STAGE DATA

(All dates in April unless otherwise specified)

River and station	Flood stage	Above flood stages –dates From–	To	Crest Stage	Date
	Ft			Ft	
[illegible] RIVER BASIN-cont'd					
Calcasieu:					
Oberlin, LA	44	19	23	46.51	21
Kinder, LA	22	19	1/	27.58	25
LOWER MISSISSIPPI BASIN					
Big Black:					
West, MS	12	Mar 26	9	A19.5	3
Bovina, MS	28	Mar 12	14	38.39	2
WESTERN GULF OF MEXICO DRAINAGE					
Atchafalaya:					
Morgan City, LA	4	14	17	4.4	16
Calcasieu:					
Kinder, LA	12	Mar 31	6	14.7	1
Lake Fork:					
Quitman, TX (near)	16	20	23	20.4	21
Sabine:					
Emory, TX	12	19	1/	17.2	21
Mineola, TX	14	20	1/	19.7	21
Old Water, TX	26	1	1/	33.7	28
Longview, TX	25	29	1	29.84	May 2
Angelina:					
Lufkin, TX (near)	8	Mar 9	12	10.78	4
		30	1/	11.34	May 8
Neches:					
Alton, TX (near)	16	30	1/	17.55	May 1
Diboll, TX (near)	10	Mar 26	8	11.75	3
East Fork Trinity:					
Crandall, TX	13	19	21	#16.9	20
Chambers Creek:					
Corsicana, TX (near)	20	19	23	24.1	21
Richland Creek:					
Richland, TX (near)	20	19	20	22.0	20
Trinity:					
Dallas, TX	30	19	23	#37.3	20
Rosser, TX	26	20	23	33.5	21
Trinidad, TX	28	20	28	41.1	21
Long Lake, TX	35	23	1/	43.7	26
Moss Bluff, TX	4	24	1/	# 8.1	May 11,12
Little:					
Little River, TX (near)	30	28	30	30.23	29
Cameron, TX	30	30	30	1	30
Navasota:					
Easterly, TX (near)	14	20	30	17.1	21
Bryan, TX (near)	12	21	1/	13.98	24
Coleto Creek:					
Schroeder, TX	14			17.5	19
Guadalupe:					
Cuero USGS, TX	20	21	24	20.5	22
Victoria, TX	21	18	25	26.60	18
Dupont, TX	20	18	30	27.8	19
Frio:					
Derby, TX (near)	6	19	21	9.3	20
PACIFIC SLOPE DRAINAGE					
Portneuf:					
Pocatello, ID	8	11	13	8.12	12

A See Previous Monthly Reports for Additional Crest Information.

RAWINSONDE DATA

Average monthly values

RAWINSONDE DATA

Average monthly values

APRIL 1970

CARIBOU, ME — 488 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	30	141	.7	-2.5	31	2.1
1000						
950	30	506	-.2	-5.3	31	2.8
900	30	868	-1.6	-6.4	30	4.2
850	30	1,392	-3.2	-7.7	29	5.3
800	30	1,881	-4.4	-10.8	29	6.8
750	30	2,378	-6.5	-13.8	29	8.1
700	30	2,915	-8.6	-18.4	28	9.1
650	30	3,497	-11.1	-21.0	29	11.9
600	30	4,149	-14.2	-24.8	29	11.9
550	30	4,754	-16.1	-28.4	28	12.8
500	30	5,460	-22.5	-30.5	28	13.9
450	30	6,216	-27.7	-37.8	28	14.7
400	30	7,063	-33.7	-41.7	27	15.1
350	30	7,988	-40.5	-43.1	27	16.1
300	30	9,021	-46.9		27	17.2
250	30	10,216	-51.3		27	15.4
200	30	11,664	-51.9		27	14.8
175	30	12,529	-52.1		27	12.6
150	30	13,526	-52.4		27	10.3
125	30	14,703	-53.3		27	7.8
100	30	16,134	-55.2		30	6.1
80	30	17,554	-56.5		30	4.3
70	28	18,400	-57.0		31	3.8
60	27	19,375	-56.9		34	3.7
50	26	20,534	-56.6		02	4.5
40	24	21,950	-56.0		03	6.2
30	23	23,779	-56.0		04	9.1
25	23	24,943	-55.2		04	10.1
20	19	26,393	-53.8		04	11.3
15	14	28,180	-51.8		03	13.1
10	5	30,939	-46.0			

CENTRE, ILLEG. A. — 1000 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	3	140	11.4	7.5	03	1.6
1000	3	174	12.4	6.1	05	1.3
950	3	591	14.4	.1	05	1.8
900	3	1,047	12.5	-1.6	05	2.6
850	3	1,524	10.1	-3.2	05	3.5
800	3	2,027	7.9	-6.8	04	4.8
750	3	2,556	5.	-10.4	04	5.1
700	3	3,116	1.4	-15.8	04	5.5
650	3	3,717	-1.6	-19.6	03	6.3
600	3	4,343	-5.5	-22.1	03	7.1
550	3	5,019	-10.	-26.0	03	8.1
500	3	5,746	-15.5	-30.1	03	9.7
450	3	6,533	-21.1	-35.1	03	11.8
400	3	7,393	-27.0	-40.7	03	13.4
350	3	8,349	-34.3	-46.3	03	16.1
300	3	9,406	-42.5	-48.7	03	17.7
250	3	10,613	-51.6		03	20.1
200	3	12,034	-58.9		03	22.6
175	3	12,868	-60.7		03	26.8
150	3	13,827	-60.8		03	24.4
125	3	14,956	-63.3		03	21.2
100	3	16,317	-66.		03	15.1
80	3	17,867	-67.		03	9.3
70	3	18,775	-66.		03	5.9
60	3	19,810	-65.		02	2.9
50	3	20,927	-62.		03	2.4
40	3	21,910	-60.		03	3.9
30	3	23,720	-56.		07	5.9
25	3	24,886	-53.		06	5.0
20	3	26,337	-49.		06	3.2
15	3	28,251	-45.		07	.1
10	3	31,016	-38.		08	4.4

CHARLESTON, SC — 1017 MB

Standard pressure surface mb	No. of observations	Dynamic Height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	30	13	12.0	8.8	35	.9
1000	30	155	16.0	7.7	30	.9
950	30	591	14.4	3.1	30	1.9
900	30	1,046	12.4	-1.3	29	3.0
850	30	1,522	9.7	-4.5	28	3.4
800	30	2,023	6.7	-7.4	28	4.3
750	30	2,551	4.2	-12..	28	4.5
700	30	3,109	1.4	-16.2	29	4.5
650	30	3,702	-1.8	-19.7	29	7.5
600	30	4,334	-5.6	-23.1	29	8.2
550	30	5,011	-10.0	-26.9	29	9.4
500	30	5,738	-15.2	-30.8	29	11.4
450	30	6,526	-20.8	-34.6	29	14.0
400	30	7,385	-27.3	-40.	28	15.7
350	30	8,330	-34.3	-45.5	28	18.2
300	30	9,393	-42.5		28	19.7
250	30	10,600	-51.6		28	22.9
200	30	12,020	-58.6		28	25.1
175	30	12,856	-59.7		28	24.8
150	30	13,818	-60.9		28	23.3
125	30	14,948	-62.1		28	21.4
100	30	16,317	-64.8		28	16.9
80	30	17,674	-66.0		29	11.1
70	30	18,485	-65.8		29	7.7
60	30	19,427	-64.4		31	4.8
50	30	20,548	-62.0		01	2.4
40	30	21,937	-59.6		03	3.0
30	30	23,751	-55.9		04	3.6
25	30	24,921	-53.1		06	3.9
20	30	26,377	-49.7		05	2.5
15	30	28,287	-45.3		30	1.1
10	30	31,051	-37.9			

CHATHAM, MA — 1011 MB

Standard pressure surface mb	No. of observations	Dynamic Height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	30	16	4.8	2.3	32	2.3
1000	29	114	8.5	1.5	32	3.3
950	30	534	8.3	-1.4	31	5.9
900	30	979	5.6	-3.9	30	6.7
850	30	1,444	3.1	-6.9	29	8.4
800	30	1,933	.2	-9.9	29	9.0
750	30	2,447	-2.8	-13.5	28	10.8
700	30	2,992	-5.7	-16.7	28	11.6
650	30	3,570	-8.9	-20.8	28	12.1
600	30	4,185	-12.8	-24..	28	12.6
550	30	4,844	-16.9	-27.7	28	12.8
500	30	5,552	-21.7	-32..	28	12.7
450	30	6,320	-26.9	-37.1	27	13.8
400	30	7,160	-32.7	-42.5	27	15.5
350	30	8,092	-38.6	-46..	27	17.0
300	30	9,123	-45.5		27	18.4
250	30	10,314	-51.0		27	20.3
200	30	11,751	-54.1		28	18.7
175	30	12,606	-54.7		28	17.5
150	30	13,591	-55.1		27	13..
125	30	14,753	-56.1		27	11.0
100	30	16,172	-57.7		27	8.2
80	30	17,575	-59.0		28	5.5
70	29	18,412	-59.8		29	4.1
60	27	19,378	-59.4		33	3.3
50	25	20,518	-59.0		01	3.3
40	23	21,921	-58.2		03	5.4
30	21	23,746	-57.1		05	7.2
25	21	24,903	-56.2		04	8.2
20	19	26,326	-54.8		04	8.3
15	13	28,165	-51.4		05	8.0

CHIHUAHUA, MEXICO — 850 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	30	1,428	11.6	-1.9	42	.6
1000						
950						
900						
850	28	1,480	10.7	-2.2	24	1.1
800	30	1,992	6.0	-3.2	23	3.7
750	30	2,534	3.1	-5.6	24	5.4
700	30	3,097	.4	-7.0	23	7.3
650	30	3,698	-2.9	-16.2	23	8.6
600	30	4,336	-9.6	-19.6	23	9.2
550	30	5,018	-8.5	-21.0	24	10.4
500	30	5,744	-13.9	-27.2	24	11.6
450	30	6,541	-19.7	-30.0	25	12.3
400	30	7,405	-25.8	-36.5	25	13.4
350	30	8,361	-33.1	-42.8	25	14.8
300	30	9,423	-41.5	-45.7	26	15.2
250	30	10,635	-50.9		26	14.1
200	30	12,058	-59.3		26	13.6
175	30	12,892	-61.1		26	12.4
150	30	13,847	-62.3		26	11.2
125	30	14,960	-63.2		26	10.4
100	30	16,315	-64.3		25	9.9
80	29	17,654	-64.1		25	9.4
70	27	18,457	-67.3		25	9.7
60	26	19,368	-66.5		26	10.3
50	24	20,498	-64.6		26	10.6
40	24	21,880	-62.8		27	10.8
30	21	23,680	-57.1		28	10.3
25	20	24,839	-54.9		28	9.5
20	18	26,293	-50.7		28	8.5
15	10	28,260	-44.1		28	7.2
10	5	31,074	-38.5			

COLD BAY, AK — 1002 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	21	30	-3.3	-5.4	31	2.2
1000	19	124	-4.9	-6.9	14	.2
950	21	448	-5.6	-8.4	32	2.5
900	21	871	-7.0	-12.9	32	4.0
850	21	1,316	-8.4	-14.4	32	4.9
800	21	1,784	-10.5	-16.5	32	5.3
750	21	2,278	-13.5	-2..2	32	5.2
700	21	2,800	-16.6	-25.3	31	4.7
650	21	3,354	-19.9	-28.0	29	4.2
600	21	3,943	-23.6	-30.9	29	5.5
550	21	4,574	-27.3	-34.6	28	7.7
500	21	5,255	-31.2	-39.6	28	8.2
450	21	5,996	-35.4	-43.5	29	9.7
400	21	6,808	-40.3	-45.9	29	11.8
350	21	7,710	-45.6		29	13.6
300	21	8,725	-49.5		29	13.7
250	21	9,916	-50.0		28	14.8
200	21	11,376	-49.3		28	12.6
175	20	12,255	-48.4		27	10.4
150	19	13,267	-48.6		26	7.1
125	19	14,464	-49.1		24	7.7
100	18	15,923	-48.1		25	6.9
80	8	17,392	-48.4		24	3.4
70	14	18,262	-47.5		21	2.8
60	15	19,280	-47.4		19	2.7
50	14	20,478	-47.3		15	3.2
40	14	21,952	-47.9		12	4.4
30	12	23,845	-48.7		13	6.7
25	11	25,037	-48.8		10	7.8
20	9	26,492	-48.8			
15	8	28,387	-48.0			
10						

DAYTON, OH — 983 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	30	299	6.2	3.1	04	.8
1000	30	582	8.8	.9	05	3.6
950	30	1,029	6.5	-1.2	07	6.0
900	30	1,496	4..	-5.1	08	7.9
850	30	1,987	2..	-9.6	08	9.0
800	30	2,507	.3	-13.3	08	10.5
750	30	3,058	-2.6	-17.1	09	12.1
700	30	3,642	-5.8	-20.1	09	13.1
650	30	4,264	-9.6	-25.4	09	15.1
600	30	4,931	-13.8	-28.9	09	17.1
550	30	5,648	-19.1	-32.6	09	18.5
500	30	6,424	-24.6	-37.9	09	20.0
450	30	7,270	-30.9	-43.6	09	21.5
400	30	8,207	-37.9	-47.5	09	23.2
350	30	9,249	-45.4		09	24.8
300	30	10,444	-53.0		09	26.9
250	30	11,867	-57.3		08	25.8
200	30	12,711	-57.5		08	23.9
175	30	13,685	-57.0		08	21.6
150	30	14,837	-58.1		08	16.8
125	30	16,237	-59.9		09	13.7
100	30	17,630	-60.5		30	7.5
80	28	18,462	-60.7		31	4.6
70	28	19,425	-60.3		34	2.6
60	28	20,566	-59.1		05	4.3
50	25	21,967	-57.6		05	6.7
40	23	23,793	-55.7		06	8.8
30	21	25,960	-54.3		07	7.8
25	18	26,810	-51.5		07	7.2
20	17	28,301	-48.0		04	4.1
15	9	31,000	-44.0			
10						

DEL RIO, TX — 976 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	20	314	17.3	13.5	11	2.0
1000	29	548	17.0	11.7	14	2.9
950	29	1,008	15.4	9.3	16	7.9
900	29	1,492	13.4	4.9	18	7.6
850	29	2,002	12.2	-.8	20	6.7
800	29	2,541	9.8	-6.9	23	5.9
750	29	3,110	6.2	-10.3	26	4.7
700	29	3,712	1.6	-13.3	26	7.2
650	29	4,351	-3.4	-16.4	26	8.3
600	29	5,033	-8.5	-22.3	25	10.1
550	29	5,764	-14.0	-27.7	25	12.2
500	29	6,556	-19.4	-32.5	25	13.4
450	29	7,421	-25.6	-38.4	26	17.9
400	29	8,378	-32.8	-45.0	26	21.2
350	29	9,442	-41.2	-49.3	26	24.0
300	29	10,654	-50.9		26	28.7
250	29	12,077	-59.1		26	31.8
200	29	12,911	-60.5		26	28.3
175	29	13,869	-62.2		26	24.0
150	29	14,988	-65.2		26	20.9
125	29	16,337	-68.1		26	18.3
100	28	17,675	-68.6		25	8.5
80	28	18,475	-68.5		24	4.5
70	28	19,403	-66.8		24	1.1
60	28	20,512	-64.3		04	1.4
50	27	21,890	-60.9		07	1.6
40	24	23,699	-57.1		07	3.1
30	23	24,864	-54.3		06	2.2
25	22	26,302	-51.0		05	1.9
20	22	28,195	-45.8		25	2.7
15	11	30,942	-39.7			

DENVER, CO — 835 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	30	1,611	4.0	-1.9	18	1.0
1000						
950						
900						
850	30	1,956	5.2	-4.9	23	1.7
800	30	2,481	2.9	-8.3	26	3.0
750	30	3,036	-.9	-11.4	28	4.5
700	30	3,624	-4.6	-15.6	27	5.3
650	30	4,249	-9.3	-20.2	26	7.1
600	30	4,915	-14.2	-25.3	26	7.8
550	30	5,631	-19.3	-31.2	26	9.3
500	30	6,404	-25.0	-37.4	25	10.6
450	30	7,251	-31.7	-43.8	25	11.6
400	30	8,183	-39.1	-50.2	25	12.5
350	30	9,220	-46.6		25	14.2
300	30	10,409	-53.9		25	16.2
250	30	11,826	-57.8		25	18.5
200	30	12,672	-56.3		25	17.3
175	30	13,653	-55.7		25	14.2
150	30	14,811	-57.5		25	11.9
125	30	16,213	-59.2		25	7.6
100	30	17,606	-60.8		24	3.3
80	30	18,436	-60.9		25	1.7
70	30	19,397	-60.1		09	1.2
60	30	20,537	-59.2		08	3.1
50	29	21,939	-57.7		08	5.6
40	27	23,761	-55.9		08	9.0
30	25	24,927	-54.9		08	8.9
25	23	26,358	-52.9		08	9.3
20	21	28,228	-49.9		08	8.2
15	16	30,910	-44.3		05	4.1

DODGE CITY, KS — 923 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	30	791	8.5	4.9	19	.2
1000						
950	30	995	9.4	4.2	19	2.4
900	30	1,469	8.0	-.1	23	4.9
850	30	1,971	7.5	-4.3	24	5.0
800	30	2,500	5.0	-7.6	25	6.2
750	30	3,059	.4	-11.6	26	7.5
700	30	3,652	-2.0	-16.1	26	8.4
650	30	4,281	-7.4	-19.9	25	10.6
600	30	4,951	-10.6	-23.7	25	11.1
550	30	5,671	-18.6	-29.5	24	11.9
500	30	6,450	-23.5	-35..	24	12.9
450	30	7,300	-30.0	-42.0	24	14.5
400	30	8,240	-37.3	-47.7	24	15.7
350	30	9,283	-45.5		24	17.8
300	30	10,477	-53.4		24	19.9
250	30	11,893	-58.9		25	20.7
200	30	12,731	-58.5		25	20.8
175	30	13,704	-57.6		26	18.0
150	30	14,852	-59.6		26	14.7
125	30	16,244	-61.6		26	9.4
100	30	17,618	-62.7		26	6.5
80	30	18,441	-62.8		27	3.2
70	30	19,395	-62.9		04	.4
60	30	20,525	-60.4		07	2.7
50	29	21,922	-58.5		07	5.5
40	28	23,743	-56.3		08	8.3
30	27	24,903	-55.1		08	8.8
25	26	26,330	-53.0		08	8.1
20	20	28,202	-49.5		07	6.9
15	14	30,874	-43.1		05	3.4
10						

EL PASO, TX — 879 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	30	1,193	11.6	-4.1	26	.9
1000						
950						
900						
850	30	1,477	14.0	-4.1	26	2.8
800	30	1,985	11.1	-7.1	26	4.6
750	30	2,520	7.2	-10.0	25	6.3
700	30	3,083	2.9	-13.6	25	7.0
650	30	3,678	-1.4	-16.5	24	8.5
600	30	4,310	-6.1	-18.9	23	10.3
550	30	4,984	-10.9	-24.6	23	12.7
500	30	5,710	-16.0	-31.5	24	14.0
450	30	6,494	-22.0	-36.4	24	14.6
400	30	7,349	-28.8	-41.9	25	16.1
350	30	8,294	-35.7	-46.7	25	20.2
300	30	9,345	-44.2		25	21.8
250	30	10,545	-52.5		25	20.2
200	30	11,963	-59.1		26	27.9
175	30	12,799	-59.5		26	26.7
150	30	13,764	-60.0		26	24.6
125	30	14,897	-62.3		25	20.1
100	30	16,264	-65.4		25	14.7
80	30	17,619	-65.8		25	8.7
70	30	18,430	-65.6		24	3.7
60	29	19,367	-65.5		33	.4
50	28	20,482	-62.7		06	1.9
40	27	21,868	-59.9		04	4.2
30	26	23,680	-56.4		07	5.0
25	25	24,839	-54.3		07	5.4
20	23	26,283	-51.4		08	3.3
15	15	28,189	-46.2		03	.5
10	7	30,834	-41.2			

ELY, NV — 805 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	29	1,908	-1.7	-5.5	20	2.1
1000						
950						
900						
850	25	1,971	.8	-5.1	21	2.0
800	29	2,478	.3	-9.4	19	2.0
750	29	3,028	-3.5	-12.6	23	3.5
700	29	3,609	-7.4	-16.6	24	5.1
650	29	4,228	-11.3	-22.1	24	6.1
600	29	4,880	-15.7	-26.8	24	7.1
550	29	5,602	-20.5	-31.9	24	8.6
500	29	6,373	-26.2	-35.8	24	9.1
450	29	7,214	-32.6	-41.1	24	8.8
400	29	8,143	-39.9	-48.1	24	9.7
350	29	9,176	-47.4		25	11.2
300	28	10,363	-54.1		26	13.8
250	28	11,782	-57.0		26	14.0
200	28	12,629	-55.7		26	12.9
175	28	13,613	-55.1		26	11.7
150	28	14,773	-56.8		25	9.8
125	28	16,181	-58.8		23	6.6
100	28	17,580	-59.4		22	3.7
80	28	18,415	-60.1		20	1.6
70	28	19,377	-60.1		15	1.3
60	26	20,518	-59.5		10	2.7
50	26	21,919	-58.2		10	6.6
40	25	23,737	-56.9		09	8.4
30	24	24,898	-55.7		08	8.7
25	24	26,325	-53.8		08	9.9
20	23	28,193	-49.1		09	8.1
15	17	30,913	-41.7			

EMPALME, MEXICO — 1011 MB

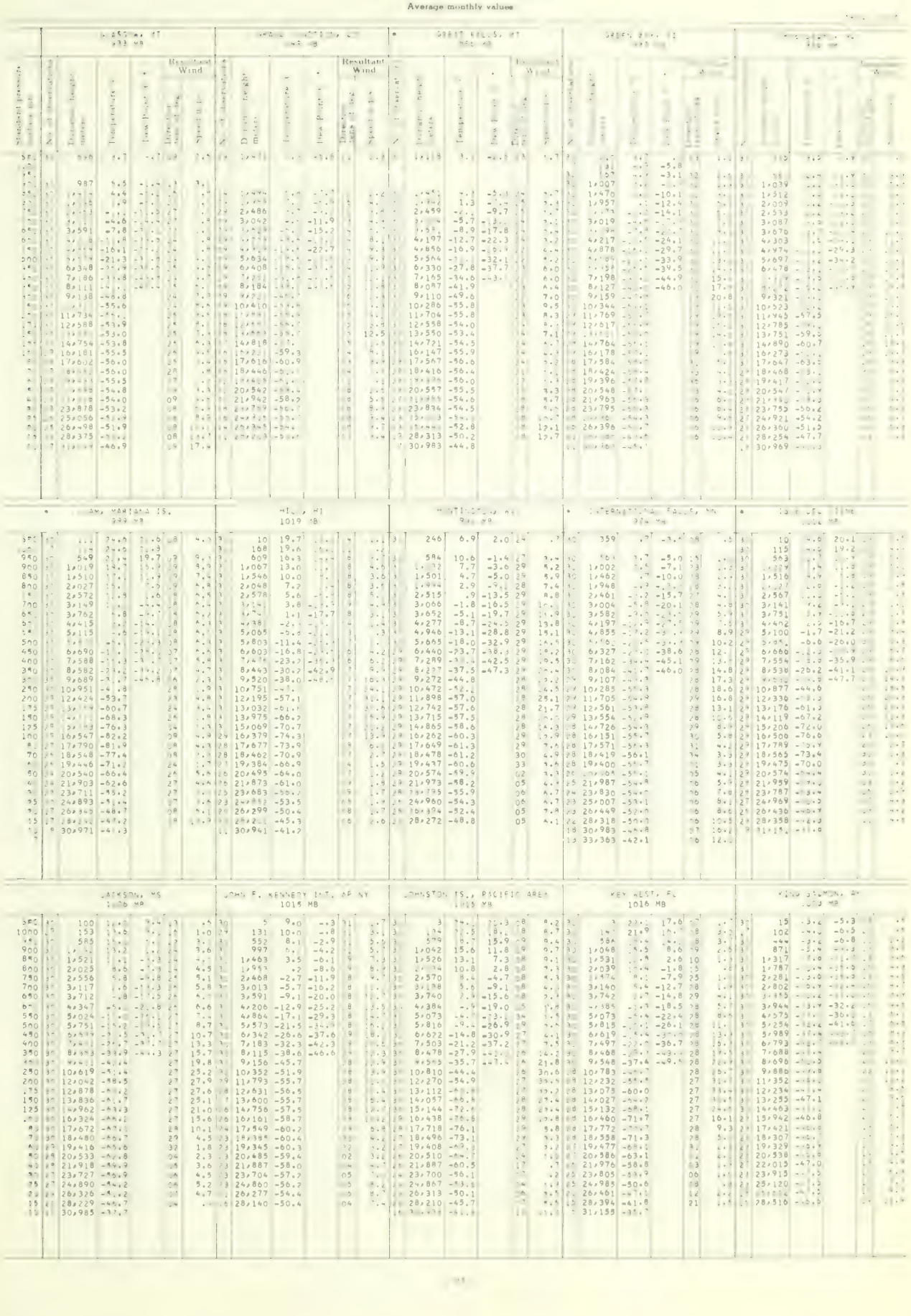
Standard pressure surface mb	No. of observations	Dynamic Height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	30	12	15.3	7.0	34	.8
1000	30	104	18.8	7.5	34	1.1
950	30	545	19.0	2.3	34	1.5
900	30	1,008	16.9	-1.1	28	.4
850	30	1,492	14..	-4.9	20	2.1
800	30	2,001	11.1	-7.1	20	4.8
750	30	2,536	8.1	-10.8	22	6.0
700	30	3,101	4.5	-15.8	22	7.2
650	30	3,701	1.1	-18.1	23	8.0
600	30	4,340	-3.2	-21.9	24	9.5
550	30	5,022	-8.1	-25.1	25	10.9
500	30	5,754	-13.7	-29.0	25	13.2
450	30	6,546	-19.1	-33.2	25	14.1
400	30	7,412	-25.4	-37.8	26	14.8
350	30	8,370	-32.6	-44.0	26	21.4
300	30	9,435	-40.7	-49.6	26	26.6
250	30	10,651	-50.1		26	29.8
200	30	12,078	-58.5		26	32.0
175	30	12,913	-60.6		26	31.3
150	30	13,872	-61.3		26	26.4
125	30	14,998	-63.6		26	22.0
100	30	16,356	-66.6		25	19.6
80	30	17,702	-67.4		25	8.1
70	30	18,508	-66.0		26	4.0
60	28	19,445	-65.8		23	1.6
50	26	20,555	-63.6		05	.5
40	25	21,936	-60.0		07	2.4
30	25	23,745	-56.6		06	2.4
25	24	24,905	-55.0		05	2.4
20	20	26,340	-50.8		04	1.3
15	15	28,252	-45.8		27	1.1

FAIRBANKS, AK — 991 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/sec
SFC	30	135	-.6	-7.9	35	1.8
1000						
950	30	475	1.6	-9.8	08	2.3
900	30	909	-1.3	-12.4	13	2.7
850	30	1,382	-4.5	-14.9	16	2.9
800	30	1,886	-7.8	-17.2	18	3.2
750	30	2,425	-11.7	-18.9	18	4.2
700	30	2,999	-15.9	-22.3	19	6.1
650	30	3,614	-19.6	-26.5	19	7.0
600	30	4,270	-23.6	-31.4	19	8.1
550	30	4,984	-27.8	-34.9	19	8.5
500	30	5,752	-32.8	-39.6	19	10.2
450	30	6,586	-37.9	-41.9	19	11.3
400	30	7,498	-43.6	-45.6	20	12.5
350	30	8,494	-49.1		20	13.0
300

RAWINSONDE DATA

Average monthly values



RAWINSONDE DATA

Average monthly values

ADAK, ALASKA
1006 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	30	27.6	24.3	04	1.0
1000	28	88	26.9	23.6	05	1.9
950	30	585	23.0	20.8	03	1.6
900	30	1,086	20.3	16.7	01	1.9
850	30	1,588	17.6	12.1	35	1.6
800	30	2,098	15.5	7.4	35	1.3
750	29	2,564	13.2	1.7	03	.9
700	29	3,041	10.2	-3.2	12	.8
650	29	3,754	6.8	-5.7	08	1.1
600	29	4,477	2.9	-8.8	07	2.1
550	29	5,107	-1.1	-12.1	08	3.6
500	29	5,862	-5.0	-16.7	08	4.2
450	29	6,683	-9.8	-23.3	08	5.1
400	29	7,586	-15.5	-28.2	09	5.7
350	29	8,580	-22.3	-35.3	10	5.2
300	28	9,695	-30.9	-43.2	11	5.1
250	28	10,960	-41.3		11	7.3
200	28	12,436	-53.5		11	10.0
175	28	13,282	-60.4		10	9.7
150	28	14,225	-68.0		10	10.2
125	28	15,300	-75.5		09	10.6
100	28	16,572	-80.7		09	8.8
80	28	17,833	-78.2		03	.8
70	27	18,607	-72.3		28	4.9
60	27	19,565	-67.7		27	8.1
50	27	20,633	-64.4		27	9.8
40	24	22,012	-60.3		27	10.6
30	24	23,827	-55.2		28	9.0
25	24	24,998	-52.9		28	8.6
20	23	26,450	-49.2		11	5.2
15	19	28,345	-45.7		10	12.3
10	9	31,031	-39.9			

KOTZEBUE, AK
1011 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	28	5	-17.0	-20.4	07	.1
1000	24	108	-13.1	-17.6	13	.7
950	28	484	-10.0	-16.7	28	2.5
900	28	901	-10.2	-17.4	15	3.2
850	28	1,340	-11.9	-19.2	15	4.6
800	28	1,803	-13.9	-21.4	17	4.4
750	28	2,291	-16.7	-23.6	17	5.1
700	28	2,804	-19.8	-26.6	18	6.0
650	28	3,352	-23.4	-30.2	19	7.2
600	28	3,933	-27.7	-34.9	19	7.9
550	28	4,554	-31.3	-38.8	19	8.8
500	28	5,224	-35.6	-43.5	19	8.8
450	28	5,949	-40.4	-47.7	19	9.8
400	28	6,744	-45.3		19	10.7
350	28	7,629	-50.6		19	12.6
300	28	8,624	-53.9		20	12.1
250	28	9,799	-51.3		20	10.8
200	28	11,262	-47.9		19	10.4
175	28	12,145	-46.4		19	9.7
150	28	13,169	-45.4		19	9.5
125	28	14,386	-44.7		19	8.9
100	28	15,881	-44.3		18	7.0
80	28	17,379	-43.7		18	6.2
70	28	18,276	-43.7		17	5.7
60	28	19,312	-43.9		16	5.6
50	28	20,537	-43.8		15	4.4
40	28	22,034	-44.5		14	4.5
30	27	23,961	-44.9		11	4.8
25	24	25,179	-44.7		10	5.9
20	23	26,673	-44.4		08	7.6
15	13	28,639	-42.8		09	9.7

KWAJALEIN, MARSHALL IS.
1011 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s

LAKE CHARLES, LA
1016 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	8	15.6	13.8	09	1.3
1000	30	140	17.7	13.4	14	2.3
950	30	579	16.3	8.5	17	4.2
900	30	1,037	14.3	2.4	19	4.2
850	30	1,518	12.2	-.7	20	4.0
800	30	2,024	9.6	-4.0	21	4.1
750	30	2,557	7.0	-8.1	23	4.1
700	30	3,120	3.8	-13.8	24	4.1
650	30	3,718	.0	-17.3	26	5.3
600	30	4,354	-4.3	-19.9	26	7.2
550	30	5,034	-8.6	-23.2	26	9.1
500	30	5,766	-13.9	-27.5	26	10.1
450	30	6,558	-19.3	-31.5	27	11.3
400	30	7,423	-25.5	-37.9	27	13.9
350	30	8,380	-32.9	-44.6	27	17.1
300	30	9,443	-41.4	-48.0	27	20.0
250	30	10,654	-51.1		27	24.7
200	30	12,076	-59.2		27	30.0
175	30	12,910	-60.7		27	30.2
150	30	13,866	-62.1		26	23.7
125	30	14,986	-64.3		26	21.0
100	30	16,334	-67.9		26	15.9
80	30	17,671	-69.2		26	8.9
70	30	18,470	-68.0		27	4.5
60	30	19,399	-66.5		30	1.8
50	30	20,511	-63.6		34	1.7
40	29	21,893	-60.2		05	2.3
30	29	23,703	-56.6		06	3.5
25	26	24,867	-54.1		05	3.4
20	25	26,311	-50.5		07	2.7
15	20	28,206	-45.5		25	1.4
10	14	30,962	-37.6		27	11.5

LANDER, WY
826 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	1,697	4.1	-4.6	25	1.0
1000						
950						
900						
850	30	1,949	3.0	-6.6	30	1.1
800	30	2,427	1.4	-9.0	29	1.2
750	30	3,020	-3.2	-12.0	26	2.2
700	30	3,656	-7.6	-15.4	26	4.6
650	30	4,321	-11.1	-21.8	26	6.5
600	30	4,884	-15.8	-27.5	25	7.8
550	30	5,595	-20.9	-33.3	24	8.6
500	30	6,364	-26.8	-38.0	24	9.6
450	30	7,203	-33.3	-43.9	24	10.2
400	30	8,130	-40.4	-48.9	24	10.4
350	30	9,164	-48.0		25	11.5
300	30	10,344	-54.9		25	12.6
250	30	11,761	-56.6		25	12.5
200	30	12,811	-54.8		25	11.5
175	30	13,600	-54.3		24	11.1
150	30	14,764	-56.3		24	7.8
125	30	16,177	-57.0		25	4.7
100	30	17,588	-56.8		24	3.2
80	30	18,419	-59.1		22	1.7
70	30	19,388	-59.0		11	1.6
60	30	20,532	-58.0		09	4.1
50	29	21,941	-56.7		09	6.5
40	25	23,769	-55.6		08	8.4
30	25	24,933	-54.8		08	10.8
25	24	26,366	-53.1		08	11.7
20	23	28,232	-50.7		08	11.3
15	18	30,907	-42.7		08	10.7
10	13					

LIHUE KAUAI, HI
1018 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	36	21.5	18.3	06	5.4
1000	30	176	20.9	16.3	07	7.1
950	30	618	17.1	14.4	07	9.4
900	30	1,077	13.6	11.4	07	8.8
850	30	1,557	10.4	7.7	08	8.0
800	30	2,061	8.4	1.6	08	8.2
750	30	2,593	7.0	-9.0	09	7.7
700	30	3,158	4.6	-14.0	09	6.5
650	30	3,758	1.5	-16.5	08	4.9
600	30	4,398	-2.3	-18.2	08	3.7
550	30	5,083	-6.8	-22.4	07	2.5
500	30	5,820	-11.9	-26.7	07	1.2
450	30	6,619	-17.2	-32.0	03	.7
400	30	7,491	-23.7	-37.0	30	2.0
350	30	8,456	-30.9	-42.8	27	3.4
300	30	9,527	-39.2	-47.9	26	7.4
250	30	10,753	-48.3		27	14.4
200	30	12,191	-57.7		27	22.8
175	30	13,026	-61.3		27	23.6
150	30	13,974	-64.9		28	20.2
125	30	15,076	-69.1		28	16.6
100	30	16,395	-72.6		28	10.3
80	28	17,705	-72.7		30	4.7
70	27	18,493	-70.0		31	2.0
60	25	19,418	-67.1		23	.5
50	24	20,529	-63.8		11	1.0
40	24	21,910	-60.2		10	1.9
30	23	23,723	-56.0		10	2.0
25	23	24,893	-53.5		09	2.1
20	21	26,345	-49.7		36	.8
15	14	28,267	-45.5		05	2.3
10	11	30,995	-39.5			
7						

LITTLE ROCK, AR
998 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	79	12.8	7.4	10	.6
1000	9	194	9.9	1.7		
950	30	587	13.6	4.8	19	3.7
900	30	1,041	11.9	1.6	21	5.1
850	30	1,518	10.0	-1.3	23	5.0
800	30	2,021	7.8	-4.7	24	5.5
750	30	2,550	4.8	-8.9	25	6.1
700	30	3,109	1.4	-13.0	26	6.2
650	30	3,702	-2.0	-17.6	26	6.5
600	30	4,334	-6.1	-21.6	26	7.3
550	30	5,009	-10.8	-25.9	26	8.7
500	30	5,735	-15.8	-30.2	26	10.0
450	30	6,521	-21.4	-35.0	26	11.3
400	30	7,378	-27.7	-40.4	27	13.2
350	30	8,327	-34.7	-45.6	27	15.8
300	30	9,382	-43.2		27	18.7
250	30	10,587	-51.9		27	23.0
200	30	12,006	-59.2		27	27.1
175	30	12,840	-60.3		27	24.7
150	30	13,804	-59.7		27	22.9
125	30	14,941	-61.4		27	18.6
100	30	16,317	-64.1		27	13.8
80	29	17,681	-65.0		28	8.7
70	29	18,496	-64.5		29	4.9
60	29	19,440	-63.4		32	2.0
50	29	20,567	-61.2		04	3.2
40	29	21,959	-59.2		07	4.7
30	29	23,773	-56.4		07	7.0
25	29	24,936	-54.5		07	8.0
20	27	26,379	-51.3		07	5.5
15	25	28,268	-47.4		06	2.2
10	14	30,961	-39.9		27	3.4

LONGVIEW, TX
1003 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	124	13.6	11.8	16	1.3
1000	23	158	14.0	10.6	16	1.3
950	30	581	15.1	8.1	20	2.1
900	30	1,038	13.6	3.7	21	3.1
850	30	1,518	11.4	-.8	22	3.9
800	30	2,023	8.8	-3.9	23	4.2
750	30	2,554	6.0	-6.4	24	4.8
700	30	3,116	2.6	-11.0	24	5.0
650	30	3,711	-1.0	-15.0	24	5.6
600	30	4,345	-5.1	-19.1	25	6.3
550	30	5,023	-9.6	-21.8	25	7.7
500	30	5,752	-14.9	-27.0	25	9.4
450	30	6,541	-20.2	-31.4	26	11.4
400	30	7,403	-26.3	-37.6	26	14.1
350	30	8,358	-33.6	-44.1	26	16.6
300	30	9,417	-42.1		26	20.1
250	30	10,626	-51.6		26	25.4
200	30	12,043	-59.9		26	28.6
175	30	12,874	-60.9		27	27.4
150	30	13,832	-61.1		27	24.0
125	30	14,960	-63.4		26	20.3
100	30	16,323	-65.7		27	13.7
80	29	17,674	-66.9		27	8.4
70	28	18,481	-66.7		28	5.2
60	28	19,416	-65.4		32	1.8
50	28	20,534	-62.4		05	2.3
40	28	21,918	-60.4		06	3.7
30	28	23,724	-57.1		07	5.4
25	27	24,886	-54.7		08	4.9
20	26	26,324	-51.8		08	4.9
15	23	28,198	-47.6		05	1.4
10	13	30,879	-40.6		26	8.1

MCGRATH, AK
995 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	103	-4.7	-9.1	30	1.0
1000	6	178	-3.1	-9.3		
950	30	466	-2.4	-9.3	09	1.9
900	30	894	-4.5	-11.6	12	4.1
850	30	1,342	-7.2	-13.2	15	4.4
800	30	1,812	-10.0	-15.8	15	4.6
750	30	2,306	-13.3	-19.8	17	5.5
700	30	2,828	-17.2	-23.5	17	6.4
650	30	3,380	-21.9	-27.1	18	7.3
600	30	3,967	-27.9	-32.1	18	7.9
550	30	4,594	-28.8	-36.7	18	9.4
500	30	5,270	-33.5	-40.8	18	9.8
450	30	6,003	-37.9	-43.6	19	9.8
400	30	6,805	-43.3	-47.3	19	10.6
350	30	7,695	-49.1		19	10.4
300	30	8,695	-52.3		20	10.3
250	30	9,825	-51.3		20	10.5
200	30	11,336	-48.1		20	10.0
175	30	12,218	-47.2		20	10.0
150	30	13,241	-46.5		19	9.4
125	29	14,453	-45.9		19	8.7
100	29	15,940	-45.4		19	7.2
80	29	17,429	-45.3		18	6.2
70	28	18,320	-45.2		17	5.6
60	28	19,349	-45.4		16	5.3
50	28	20,566	-45.3		15	4.6
40	28	22,053	-45.6		13	4.7
30	28	23,967	-46.3		12	5.7
25	28	25,182	-46.0		11	6.5
20	25	26,676	-45.4		10	8.2
15	22	28,594	-44.8		09	11.1
10	15	31,339	-43.4		10	14.0
	8	33,813	-42.9			

MAJURO, MARSHALL IS.
1011 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	26	3	27.9	24.1	08	4.6
1000	26	94	26.8	23.5	08	5.4
950	26	547	23.4	21.5	08	7.4
900	26	1,019	20.7	18.1	09	7.5
850	26	1,513	17.8	14.0	10	6.4
800	26	2,031	15.0	11.3	10	4.6
750	26	2,578	13.2	7.1	10	3.7
700	26	3,156	10.2	3.0	09	3.1
650	26	3,770	6.7	-.4	08	2.5
600	26	4,424	3.2	-3.9	10	2.2
550	26	5,125	-.6	-7.4	11	1.3
500	26	5,882	-4.6	-12.8	19	.6
450	26	6,705	-9.3	-17.5	25	1.6
400	26	7,600	-14.6	-24.1	25	2.2
350	26	8,609	-21.4	-30.8	25	4.0
300	26	9,725	-29.5	-38.0	24	4.4
250	26	10,999	-39.0	-48.7	24	5.3
200	26	12,482	-52.6		25	7.0
175	26	13,331	-59.7		26	7.5
150	26	14,277	-67.0		28	6.8
125	26	15,359	-74.3		30	6.8
100	26	16,636	-80.3		31	3.9
80	26	17,900	-76.9		28	0.0
70	26	18,677	-72.0		27	9.9
60	26	19,595	-67.3		27	12.0
50	26	20,708	-62.8		27	12.5
40	26	22,095	-59.0		27	12.5
30	24	23,924	-56.1		27	7.5
25	23	25,105	-51.4		25	2.8
20	18	26,556	-48.7		10	4.5
15	12	28,447	-45.6		09	13.1

MEDFORD, OR
970 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	401	4.3	1.3	32	.5
1000						
950	30	570	5.2	-.7	30	.9
900	30	1,011	3.5	-1.3	23	.5
850	30	1,473	.8	-3.5	24	1.0
800	30	1,958	-1.5	-8.1	24	2.0
750	30	2,469	-4.5	-11.2	25	3.4
700	30	3,010	-7.8	-16.9	26	4.6
650	30	3,583	-10.7	-22.1	26	5.6
600	30	4,194	-14.2	-27.6	27	6.6
550	30	4,850	-18.0	-30.3	28	8.0
500	30	5,556	-22.6	-34.7	29	9.9
450	30	6,321	-27.8	-39.1	28	10.8
400	30	7,157	-33.8	-44.3	28	11.5
350	30	8,083	-40.5	-47.8	28	13.5
300	29	9,117	-47.5		28	14.2
250	29	10,305	-53.9		28	17.5
200	28	11,723	-56.2		29	16.4
175	27	12,569	-54.8		27	12.1
150	27	13,556	-54.3		27	11.5
125	27	14,723	-55.6		27	8.4
100	27	16,142	-56.3		24	5.9
80	27	17,557	-56.8		23	3.6
70	27	18,402	-57.5		22	2.1
60	24	19,373	-57.6		14	1.4
50	24	20,525	-57.1		09	3.5
40	24	21,939	-56.6		09	5.9
30	23	23,768	-55.7		09	8.5
25	23	24,931	-55.2		09	9.4
20	24	26,359	-53.5		09	10.2
15	20	28,221	-51.8		08	10.4
10	10	30,922	-46.4			

MIAMI, FL
1017 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	4	21.1	17.5	01	1.0
1000	30	150	20.9	15.7	07	1.8
950	30	592	17.8	13.6	09	2.5
900	30	1,053	14.7	8.8	09	2.3
850	30	1,535	12.0	3.5	08	1.7
800	30	2,041	9.6	-1.3	05	1.0
750	30	2,574	7.3	-5.5	33	.6
700	30	3,139	4.6	-11.1	29	2.1
650	30	3,740	1.7	-15.3	29	3.9
600	30	4,381	-1.6	-19.1	29	6.1
550	30	5,068	-6.1	-22.1	29	8.3
500	30	5,807	-11.0	-26.2	29	10.3
450	30	6,608	-16.5	-31.2	29	12.6
400	30	7,483	-22.8	-37.9	29	15.3
350	30	8,450	-30.3	-46.1	28	18.3
300	30	9,526	-38.4	-50.3	28	21.4
250	30	10,756	-47.5		28	25.5
200	30	12,201	-55.6		28	31.5
175	30	13,045	-59.4		28	31.6
150	30	14,001	-63.1		28	28.4
125	30	15,112	-67.2		28	24.6
100	30	16,447	-70.5		28	18.0
80	30	17,767	-71.8		28	12.0
70	30	18,557	-70.3		29	6.7
60	30	19,478	-67.8		31	3.1
50	30	20,586	-63.2		01	2.0
40	30	21,973	-59.0		01	1.8
30	28	23,804	-54.1		02	.6
25	27	24,982	-51.8		32	.7
20	21	26,454	-47.1		23	.2
15	12	28,384	-42.2		26	2.9

MIDLAND, TX
934 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	874	12.1	7.6	17	2.4
1000						
950						
900	30	1,000	13.8	7.1	18	4.2
850	30	1,482	13.3	.9	20	7.3
800	30	1,991	11.9	-3.9	23	9.8
750	30	2,528	8.7	-7.3	24	9.3
700	30	3,094	4.4	-12.0	24	9.2
650	30	3,693	.0	-14.5	25	9.6
600	30	4,327	-5.1	-18.9	25	9.1
550	30	5,004	-10.2	-24.5	25	10.0
500	30	5,732	-15.2	-30.1	26	11.4
450	30	6,519	-21.0	-35.3	26	12.5
400	30	7,378	-27.7	-40.4	25	14.2
350	30	8,326	-35.0	-45.6	25	19.2
300	30	9,381	-42.9		25	24.0
250	30	10,586	-51.9		25	27.7
200	30	12,001	-59.0		26	28.3
175	30	12,836	-59.3		26	27.3
150	30	13,799	-60.2		26	23.6
125	30	14,929	-63.1		25	19.1
100	30	16,294	-65.0		25	12.2
80	30	17,650	-66.8		25	7.6
70	30	18,460	-66.5		27	5.7
60	30	19,396	-65.3		28	1.1
50	30	20,511	-62.9		06	2.0
40	30	21,893	-60.7		07	3.6
30	30	23,700	-56.8		07	4.1
25	29	24,864	-54.7		07	4.4
20	28	26,305	-52.0		07	3.9
15	18	28,192	-47.1		06	1.3
10	14	30,893	-41.2		29	8.0

MONTERREY, MEXICO
962 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	423	18.3	15.7	09	.7
1000						
950	30	557	18.1	13.4	11	1.2
900	30	1,020	16.2	13.2	14	2.4
850	30	1,508	15.0	7.4	16	3.4
800	30	2,018	14.0	2.4	18	3.3
750	30	2,561	11.5	-2.2	23	2.8
700	30	3,134	7.7	-6.3	26	3.9
650	30	3,740	3.4	-10.5	26	5.6
600	30	4,384	-1.6	-14.8	26	8.8
550	30	5,069	-6.9	-17.0	26	10.9
500	30	5,806	-12.2	-22.9	25	13.1
450	30	6,604	-17.4	-28.8	26	15.2
400	30	7,473	-23.4	-34.5	26	17.1
350	30	8,441	-30.6	-41.2	26	19.5
300	29	9,515	-39.1	-47.9	26	23.4
250	29	10,737	-49.2		26	26.7
200	29	12,168	-59.0		26	31.8
175	27	13,000	-61.8		26	31.9
150	27	13,948	-64.4		26	27.7
125	27	15,055	-67.5		26	21.9
100	27	16,387	-70.8		26	15.9
80	26	17,704	-72.1		26	8.9
70	26	18,496	-70.0		26	5.1
60	26	19,415	-68.1		26	1.2
50	24	20,521	-63.8		02	.8
40	23	21,900	-60.6		07	2.7
30	23	23,712	-56.0		06	1.4
25	22	24,877	-53.6		07	.4
20	18	26,320	-49.8		31	.8
15	15	28,208	-44.9		25	4.4
10	8	30,928	-37.4			

MONETT, MO
965 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	438	10.2	5.7	15

RAWINSONDE DATA

Average monthly values

[illegible], TX
998 MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	[illegible]	9.4	5.6	19	2.2
[illegible]	[illegible]	[illegible]	8.7	1.9	08	1.1
[illegible]	[illegible]	[illegible]	12.0	1.7	24	1.4
900	30	1,041	9.8	-1.1	26	1.8
850	30	1,514	7.4	-4.5	27	3.0
800	30	[illegible]	5.7	-7.4	28	5.2
750	30	[illegible]	3.6	-12.2	28	5.8
700	30	3,095	.5	-14.8	28	6.7
650	30	3,683	-3.1	-17.9	28	8.1
600	30	4,315	-6.7	-23.0	27	9.3
550	30	4,988	-11.6	[illegible]	27	[illegible]
500	30	5,711	-16.9	-30.5	28	12.0
450	30	[illegible]	-22.4	-37.0	28	13.7
400	30	7,347	-28.7	[illegible]	28	15.4
350	30	[illegible]	-35.9	-47.8	28	17.5
300	30	9,342	-44.2		28	20.2
250	30	10,541	-52.6		28	[illegible]
200	30	11,960	-59.0		28	25.1
150	30	12,789	-59.6		29	[illegible]
100	29	13,756	-59.0		27	22.0
70	29	14,895	-60.5		28	19.9
100	29	[illegible]	-62.9		28	15.2
80	29	17,649	-63.5		29	[illegible]
70	29	[illegible]	-63.9		30	4.9
60	29	19,415	-62.9		33	3.3
50	29	20,543	-60.9		03	3.1
40	28	21,934	-59.5		06	5.3
30	29	23,746	-56.8		06	7.2
25	27	24,903	-55.3		06	7.5
20	27	26,335	-52.6		06	7.0
15	22	28,201	-49.6		04	4.1
10	29	30,878	-42.5		29	3.9
7						
5						

[illegible], AK
[illegible] MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	[illegible]	[illegible]	-13.6	-16.8	[illegible]	1.7
[illegible]	[illegible]	[illegible]	-10.7	-14.5	06	.8
[illegible]	[illegible]	[illegible]	-9.3	-15.1	11	1.5
900	30	882	-10.1	-16.1	15	1.8
850	30	1,322	-11.3	-18.7	[illegible]	2.6
800	30	[illegible]	-13.4	-20.9	19	3.4
750	30	2,274	-16.7	-24.1	19	[illegible]
700	30	2,790	-19.7	-27.1	19	5.0
650	30	3,336	-23.4	-30.6	19	[illegible]
600	30	3,917	-27.3	-34.1	19	5.7
550	30	4,538	-31.3	-39.1	19	6.5
500	30	5,207	-35.7	-43.2	19	7.5
450	30	5,933	-40.4	-45.4	19	8.4
400	30	6,727	-45.2	[illegible]	[illegible]	[illegible]
350	30	7,612	-50.1	[illegible]	[illegible]	10.2
300	30	8,608	-53.2	[illegible]	20	10.3
250	30	9,785	-51.4	[illegible]	20	9.9
200	30	11,842	-57.8	[illegible]	20	8.9
150	30	12,131	-46.7	[illegible]	20	9.2
100	30	13,155	-46.0	[illegible]	20	8.8
70	30	14,377	-44.8	[illegible]	19	8.5
100	29	15,871	-44.7	[illegible]	[illegible]	6.8
80	29	17,365	-44.3	[illegible]	17	6.4
70	29	18,261	-44.0	[illegible]	[illegible]	6.1
60	29	19,296	-44.4	[illegible]	16	5.5
50	29	20,517	-44.6	[illegible]	[illegible]	5.0
40	28	22,010	-45.1	[illegible]	13	5.1
30	29	24,931	-45.4	[illegible]	11	[illegible]
25	27	26,150	-45.4	[illegible]	11	6.2
20	26	26,645	-44.8	[illegible]	[illegible]	8.3
15	22	28,201	-44.5	[illegible]	[illegible]	10.9
10	29	30,892	-42.9			
7						
5						

[illegible], ND
[illegible] MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	847	3.5	1.0	[illegible]	1.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	30	999	6.8	2.0	18	[illegible]
850	30	[illegible]	6.4	-.8	19	1.6
800	30	1,498	4.8	-3.8	24	2.5
750	30	2,482	2.7	-7.2	25	4.2
700	30	3,037	-.8	-9.9	25	4.3
650	30	3,625	-4.5	-13.6	25	7.4
600	30	4,251	-8.6	-18.8	25	9.0
550	30	4,919	-13.4	-24.0	25	9.3
500	30	5,647	-18.9	-29.4	25	9.6
450	30	6,413	-24.3	-34.5	24	12.0
400	30	7,260	-30.9	[illegible]	24	[illegible]
350	30	[illegible]	-38.2	-47.0	24	14.0
300	30	9,237	-46.2		23	17.0
250	30	10,426	-54.2		23	19.2
200	30	11,842	-57.8		24	18.3
150	30	[illegible]	-56.7		25	17.4
100	30	13,666	-46.0		26	14.2
70	29	14,823	-56.9		26	10.7
100	29	16,231	-59.0		25	4.6
80	28	17,627	-59.4		28	4.3
70	27	18,463	-60.1		30	1.7
60	27	19,427	-59.5		08	2.8
50	27	20,571	-58.3		07	3.7
40	26	21,979	-56.9		07	4.2
30	26	23,813	-55.4		08	6.5
25	26	24,978	-54.6		08	7.9
20	26	26,412	-52.7		08	8.3
15	24	28,283	-50.5		08	10.9
10	24	30,950	-45.9		07	9.7
7	21	33,342	-41.8		06	8.3
5	13	35,606	-37.3			

[illegible], LA
[illegible] MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.9
[illegible]	[illegible]	[illegible]	9.1	[illegible]	[illegible]	1.0
[illegible]	30	564	7.6	.8	09	1.7
900	[illegible]	[illegible]	[illegible]	-3.4	[illegible]	2.3
850	30	1,476	4.1	-8.1	[illegible]	2.9
800	30	1,968	2.1	-12.8	08	3.3
750	30	2,686	[illegible]	-10.1	[illegible]	3.8
700	30	3,035	-3.2	-19.7	09	5.4
650	30	3,618	-6.3	-21.8	09	6.3
600	30	4,260	-8.6	-25.5	29	7.9
550	30	4,905	-14.6	-29.0	[illegible]	9.9
500	30	5,620	-19.2	-33.0	[illegible]	12.1
450	30	[illegible]	-24.9	[illegible]	[illegible]	12.3
400	30	7,241	-31.3	-43.3	[illegible]	15.1
350	30	8,176	-38.5	[illegible]	[illegible]	16.4
300	30	9,214	-46.3		[illegible]	18.6
250	30	10,406	-53.5		[illegible]	19.8
200	30	11,836	-58.1		[illegible]	[illegible]
150	29	12,666	-57.2		[illegible]	18.5
100	28	13,643	-56.5		28	15.1
70	29	14,796	-58.1		21	11.7
100	28	16,196	-59.4		[illegible]	8.1
80	27	17,692	-59.7		25	5.4
70	27	18,427	-59.6		[illegible]	2.9
60	27	19,388	-60.1		17	1.1
50	29	20,527	-59.4		10	2.4
40	29	21,929	-58.1		09	4.7
30	29	23,746	-56.5		09	7.6
25	29	24,950	-55.6		09	7.9
20	29	26,335	-53.7		09	7.8
15	29	28,205	-50.1		09	5.6
10	30	30,908	-43.4		30	1.4
7	30	33,170	-44.0			
5						

[illegible], OR
[illegible] MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.9
[illegible]	[illegible]	[illegible]	8.6	4.1	[illegible]	.9
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	30	999	9.4	2.7	15	1.7
850	30	1,471	6.0	-2.5	23	3.8
800	30	1,960	4.9	-6.1	24	4.3
750	30	[illegible]	2.9	-8.7	24	4.8
700	30	3,130	-.9	[illegible]	[illegible]	6.6
650	30	3,634	-4.4	[illegible]	[illegible]	6.6
600	30	4,260	-8.0	-18.5	25	7.8
550	30	4,929	-12.7	-24.2	25	[illegible]
500	30	5,649	-17.8	-29.7	25	[illegible]
450	30	6,428	-23.0	-34.7	25	11.5
400	30	7,276	[illegible]	[illegible]	[illegible]	12.8
350	30	8,217	-37.2	-43.2	[illegible]	14.6
300	30	9,261	[illegible]	[illegible]	25	16.5
250	30	10,450	-34.8		26	19.3
200	30	11,886	-39.6		26	20.5
150	30	[illegible]	[illegible]		[illegible]	[illegible]
100	29	12,694	-58.0		[illegible]	[illegible]
70	27	13,869	-57.0		27	14.5
100	27	14,822	-57.7		28	11.5
80	27	16,228	-59.1		28	8.4
70	27	17,826	-60.0		[illegible]	4.8
60	29	19,417	-59.9		36	1.3
50	29	[illegible]	-58.0		05	3.2
40	29	[illegible]	-57.5		07	5.3
30	29	23,788	-56.0		07	8.5
25	29	24,950	-55.1		07	9.2
20	29	26,378	-53.0		08	10.8
15	28	28,235	-51.1		[illegible]	11.4
10	29	30,921	-45.1		08	[illegible]
7						
5						

PAGO PAGO, AMERICAN SAMOA
1011 MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	5	29.3	23.8	07	3.0
1000	29	101	27.0	22.8	07	2.9
950	29	554	23.3	20.3	05	3.0
900	29	1,024	20.0	17.2	04	3.4
850	29	1,516	16.9	13.4	04	3.4
800	29	2,032	14.4	9.5	05	3.1
750	29	2,576	11.8	5.0	05	2.5
700	29	3,151	8.9	-.4	05	2.0
650	29	3,762	5.7	-2.7	06	1.1
600	29	4,413	2.2	-8.7	07	1.3
550	29	5,111	-2.0	-14.3	11	.7
500	29	5,863	-6.0	-20.6	16	.7
450	29	6,680	-10.9	-24.5	16	1.7
400	29	7,570	-16.7	-31.1	15	2.9
350	29	8,569	-23.6	-38.1	15	4.5
300	29	9,691	-31.9	-44.9	14	6.5
250	29	10,935	-42.0		15	9.7
200	29	12,406	-54.2		16	12.3
175	29	13,250	-60.7		17	12.6
150	29	14,194	-67.6		18	11.3
125	29	15,273	-74.5		18	8.6
100	29	16,553	-79.4		17	5.5
80	29	17,826	-75.6		13	2.7
70	29	18,606	-72.0		12	3.3
60	29	19,521	-69.1		10	4.2
50	29	20,626	-63.8		09	4.1
40	28	22,008	-60.0		09	5.6
30	29	23,829	-54.9		09	7.1
25	28	25,300	-52.8		08	8.9
20	23	26,451	-49.4		09	11.7
15	18	28,356	-44.8		09	15.3
10	16	31,087	-40.0		09	22.0
7	7	33,537	-36.4			
5						

PEORIA, IL
994 MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	200	7.	3.7	10	1.1
1000	6	233	2.6	-2.9	[illegible]	[illegible]
950	30	572	8.7	.8	20	1.9
900	30	1,018	7.5	-.9	25	3.4
850	30	1,488	5.9	-3.5	26	4.9
800	30	1,983	3.9	-7.5	26	5.9
750	29	2,505	1.3	-10.4	27	6.1
700	30	3,057	-1.7	-16.6	26	7.0
650	30	3,644	-4.8	-18.9	27	8.2
600	29	4,269	-8.7	-21.9	27	8.7
550	29	4,937	-13.3	-26.1	28	9.7
500	29	5,656	-18.3	-32.1	28	10.2
450	29	6,433	-24.1	-36.9	28	12.1
400	29	7,281	-30.7	-42.6	29	13.6
350	29	8,218	-37.9	-47.6	29	15.7
300	29	9,259	-46.0		28	17.8
250	29	10,452	-53.7		28	20.7
200	29	11,868	-58.0		28	22.7
175	29	12,710	-57.7		28	19.2
150	29	13,684	-57.5		28	16.4
125	29	14,835	-57.9		28	13.7
100	29	16,238	-59.2		29	10.8
80	29	17,832	-60.3		30	6.2
70	27	18,466	-60.0		31	4.4
60	29	19,429	-59.4		36	3.1
50	27	20,573	-58.7		04	3.9
40	28	21,981	-57.1		06	6.6
30	28	23,805	-55.6		07	8.7
25	23	24,969	-54.7		07	9.6
20	23	26,404	-52.7		07	12.2
15	19	28,263	-51.0		07	12.6
10	15	30,938	-45.8		06	10.5
7	8	33,302	-40.4			
5	5	35,561	-37.7			

PITTSBURGH, PA
975 MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	359	6.1	-.5	28	1.5
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	30	574	7.9	.0	29	3.7
900	30	1,018	5.8	-2.4	30	4.4
850	30	1,484	2.8	-4.6	29	4.3
800	30	1,973	.6	-8.5	29	4.9
750	30	2,489	-2.2	-11.4	29	6.1
700	30	3,035	-4.4	-17.8	29	11.9
650	30	3,615	-7.7	-21.3	29	13.0
600	30	4,233	-11.5	-24.4	29	14.9
550	30	4,896	-15.4	-28.5	29	14.9
500	30	5,609	-20.1	-33.7	29	17.4
450	30	6,378	-25.7	-37.7	29	18.9
400	30	7,225	-31.6	-43.0	29	21.4
350	30	8,158	-38.3	-46.6	29	23.4
300	29	9,199	-45.7		29	24.4
250	28	10,398	-51.9		29	24.9
200	28	11,832	-55.4		29	21.4
150	28	12,682	-56.4		29	19.5
100	28	13,690	-56.6		29	16.7
80	28	14,815	-57.1		29	14.6
70	28	15,823	-58.5		29	9.6
60	28	17,621	-59.8		30	8.9
50	28	18,455	-59.9		31	4.8
40	28	19,419	-59.3		34	3.3
30	28	20,543	-58.7		03	3.9
25	28	21,968	-57.6		05	5.4
20	28	23,791	-56.2		06	8.6
15	26	24,951	-55.4		06	9.1
10	26	26,362	-54.8		06	10.8
7	26	28,209	-52.3		05	11.4
5	17	30,795	-48.1			

[illegible], [illegible]
[illegible] MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
800	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
750	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
700	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
650	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
600	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
350	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
150	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible], [illegible]
[illegible] MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
800	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
750	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
700	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
650	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
600	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
350	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
150	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible], WA
1010 MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	58	4.4	2.7	11	.6
1000	30	137	5.5	2.6	14	.9
950	30	556	4.2	-.2	18	2.4
900	30	994	1.7	-3.4	19	3.5
850	30	[illegible]	-1.2	-6.7	19	4.6
800	30	1,934	-4.3	-10.6	20	5.1
750	30	2,440	-7.2	-15.9	20	4.8
700	30	2,974	-10.3	-18.3	20	5.6
650	30	3,542	-13.3	-22.3	22	6.1
600	30	4,148	-16.7	-26.0	22	5.8
550	30	4,797	-20.4	-29.3	23	5.4
500	30	5,496	-24.9	-33.4	23	6.9
450	27	6,258	-30.2	-36.9	24	7.1
400	27	7,085	-36.5	-41.9	25	8.6
350	27	8,001	-42.7		26	10.5
300	27	9,025	-48.9		27	11.8
250	27	10,207	-54.4		27	12.7
200	27	11,633	-54.1		27	12.1
175	27	12,493	-53.0		26	9.1
150	27	13,488	-52.7		26	8.4
125	27	14,663	-53.7		25	6.4
100	26	16,094	-54.2		24	5.0
80	26	17,522	-55.2		22	2.7
70	26	18,376	-54.9		19	2.2
60	24	19,365	-54.4		14	2.5
50	23	20,536	-54.2		10	4.0
40	21	21,972	-53.6		09	5.5
30	19	23,828	-53.5		09	8.9
25	18	25,007	-53.3		09	11.4
20	18	26,461	-52.8		08	13.0
15	8	28,325	-51.7			
10						

RAPID CITY, SD
909 MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	966	4.1	.1	34	.7
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	30	1,029	3.1	-.8	36	.9
850	30	1,461	4.8	-1.9	24	2.8
800	30	1,954	2.9	-4.2	23	2.8
750	30	2,475	.7	-8.6	25	2.8
700	30	3,025	-2.7	-12.1	25	3.4
650	30	3,629	-6.2	-15.2	25	4.6
600	30	4,231	-10.3	-20.7	24	5.3
550	30	4,896	-15.0	-26.6	24	7.1
500	30	5,629	-20.2	-32.1	24	8.2
450	30	6,381	-26.0	-37.5	25	8.8
400	30	7,222	-32.7	-43.2	25	10.2
350	30	8,151	-39.7	-47.0	24	11.8
300	30	9,184	-47.7		25	11.9
250	30	10,369	-54.6		24	12.4
200	30	11,784	-57.2		24	14.1
175	29	12,633	-55.4		25	12.9
150	29	13,619	-54.5		26	10.2
125	29	14,784	-55.8		26	7.1
100	29	16,196	-57.7		26	5.7
80	29	17,899	-58.4		27	2.9
70	28	18,439	-58.4		29	1.2
60	28	19,436	-57.8		05	1.2
50	28	20,562	-57.1		08	3.6
40	28	21,977	-56.2		07	6.0
30	28	23,811	-55.0		08	8.9
25	28	24,978	-54.3		08	10.1
20	28	26,415	-52.6		08	12.0
15	28	28,284	-50.7		08	13.3
10	14	30,956	-46.2		08	13.5

ST CLOUD, MN
980 MB

Standard pressure surface mb	No. of observations	Height decameters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	316	3.0	-.2	09	1.4
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	30	569	6.7	-2.4	15	2.9
900	30	1,012	5.3	-4.5	19	3.0
850	30	1,478	3.5	-7.0	23	3.3
800	30	1,968	1.3	-10.0	27

RAWINSONDE DATA

Average monthly values

SALEM, OR
1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	81	3.4	-.7	20	1.2
1000	30	141	6.4	-.1	20	1.1
950	30	565	5.3	-.1	23	1.7
900	30	1,000	2.7	-3.3	24	1.7
850	30	1,444	-.2	-5.2	23	3.2
800	30	1,900	-2.4	-9.8	23	3.8
750	30	2,366	-5.3	-13.6	23	4.9
700	30	2,842	-8.5	-16.5	24	4.1
650	30	3,334	-11.9	-21.4	24	5.3
600	30	4,173	-15.4	-25.0	25	5.4
550	30	4,844	-19.4	-29.3	25	5.3
500	30	5,548	-24.5	-34.1	27	8.5
450	30	6,291	-28.8	-39.3	28	8.9
400	30	7,113	-34.9	-43.8	28	10.3
350	30	8,043	-41.4	-44.9	28	10.3
300	30	9,112	-48.5		28	12.8
250	29	10,412	-54.3		28	14.1
200	28	11,685	-55.2		28	12.2
175	28	12,554	-54.0		28	9.9
150	28	13,530	-53.8		28	7.8
125	28	14,700	-54.4		28	7.2
100	28	16,125	-55.8		28	4.8
80	28	17,543	-56.4		28	3.8
70	28	18,391	-56.8		28	3.5
60	28	19,369	-56.8		28	3.7
50	28	20,587	-56.0		28	3.9
40	27	21,948	-55.6		28	4.1
30	24	23,784	-55.1		28	5.6
20	24	26,445	-54.5		28	5.9
15	24	28,382	-53.7		09	6.8
10	24	30,893	-51.1		09	7.9
7	9	32,906	-47.6		14	9.2

SALT LAKE CITY, UT
848 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	1,288	5.4	-4.0	18	1.6
1000	31	1,358	6.4	-3.9	18	1.6
950	31	1,763	7.5	-7.8	27	3.4
900	31	2,167	5.4	-11.0	27	4.5
850	31	2,573	3.6	-14.9	26	4.5
800	31	2,980	.7	-18.4	26	4.3
750	31	3,809	-7.7	-20.8	27	5.3
700	31	4,228	-11.7	-25.6	27	5.3
650	31	4,668	-16.3	-29.3	25	6.4
600	31	5,598	-21.4	-34.3	27	8.5
550	31	6,367	-26.7	-38.4	27	10.3
500	31	7,287	-33.0	-44.2	27	11.3
450	31	8,135	-40.0	-44.5	27	9.7
400	31	9,167	-48.0		27	10.5
350	31	10,350	-54.8		27	12.1
300	31	11,768	-56.5		27	13.9
250	31	12,768	-55.2		27	14.1
200	31	13,603	-55.0		27	12.2
175	31	14,760	-56.7		27	10.4
150	31	16,174	-57.9		27	8.1
125	31	17,576	-59.3		27	6.4
100	31	18,461	-60.3		27	4.8
80	31	19,374	-60.0		27	3.9
70	31	20,514	-58.8		27	3.6
60	31	21,918	-57.9		27	3.8
50	31	23,737	-56.4		27	4.2
40	31	26,299	-55.6		27	5.3
30	31	26,330	-53.7		27	6.3
20	31	28,187	-51.7		27	7.4
15	31	29,894	-49.6		27	8.4
10	31	31,856	-45.7		27	9.2
7	31	33,418	-35.9		27	7.8

SAN DIEGO, CA
1100 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	134	10.9	6.6	23	.1
1000	31	138	10.9	7.6	23	.7
950	31	551	9.6	4.9	29	1.6
900	31	999	8.2	-.8	29	2.5
850	31	1,451	7.5	-7.8	27	3.4
800	31	1,907	5.4	-11.6	27	4.5
750	31	2,373	3.6	-14.9	26	4.5
700	31	2,850	.7	-18.4	26	4.3
650	31	3,340	-2.8	-21.8	27	4.2
600	31	4,327	-7.6	-25.6	27	4.6
550	31	4,842	-11.9	-29.3	25	10.0
500	31	5,404	-17.2	-34.3	27	15.4
450	31	6,046	-22.5	-37.4	27	14.5
400	31	7,300	-28.9	-43.7	27	14.7
350	31	8,244	-36.0	-49.5	27	17.8
300	31	9,335	-43.9		27	18.5
250	31	10,507	-52.1		27	19.1
200	31	11,929	-58.5		26	19.9
175	31	12,768	-58.5		27	24.1
150	31	13,739	-58.1		28	21.0
125	31	14,881	-60.6		28	18.5
100	31	16,261	-62.5		28	11.9
80	31	17,657	-62.6		28	7.6
70	31	18,461	-62.9		25	4.6
60	31	19,410	-62.8		24	3.3
50	31	20,536	-61.5		11	1.5
40	31	21,926	-59.7		08	4.0
30	31	23,734	-57.0		08	4.4
20	31	26,892	-55.2		08	4.1
15	31	28,232	-52.5		08	4.0
10	31	30,933	-41.9		25	5.0
7	31	33,418	-35.9			

SAN JUAN, P. R.
1015 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	6	21.9	17.6	13	1.2
1000	30	134	21.7	17.9	13	2.0
950	30	579	18.9	15.6	13	3.5
900	30	1,042	16.0	11.5	12	3.2
850	30	1,525	12.9	7.7	11	2.7
800	30	2,035	11.8	.6	12	1.1
750	30	2,573	9.7	-4.5	25	.6
700	30	3,142	6.6	-9.4	26	2.8
650	30	3,747	3.3	-10.7	20	4.1
600	30	4,393	-.1	-16.5	26	5.3
550	30	5,084	-4.1	-21.3	27	6.0
500	30	5,829	-9.7	-26.5	28	9.4
450	30	6,638	-15.8	-31.4	29	11.1
400	30	7,523	-22.0	-36.4	29	12.9
350	29	8,501	-29.3	-42.4	29	16.8
300	29	9,595	-36.9	-49.7	29	22.9
250	27	10,841	-43.8		28	29.1
200	27	12,305	-54.9		28	32.3
175	27	13,146	-61.3		28	32.9
150	27	14,088	-67.2		28	29.3
125	27	15,175	-72.2		29	24.3
100	26	16,474	-76.6		29	15.7
80	25	17,757	-78.3		30	6.8
70	24	18,532	-74.2		32	3.5
60	24	19,441	-69.5		35	2.0
50	24	20,545	-64.8		02	2.1
40	24	21,928	-59.5		07	2.9
30	24	23,753	-54.6		10	4.2
20	24	26,438	-49.9		12	3.8
15	24	28,320	-43.9		14	2.3
10	24	30,972	-39.5			

SAULT STE MARIE, MI
994 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	221	.7	-2.4	35	1.3
1000	30	560	2.0	-4.0	32	3.0
950	30	997	2.0	-7.4	32	4.8
900	30	1,456	-.2	-9.1	31	5.6
850	30	1,940	-2.6	-12.1	30	6.6
800	30	2,451	-4.2	-15.8	3	8.3
750	30	2,994	-6.0	-18.1	3	9.7
700	30	3,567	-10.4	-20.7	3	10.6
650	30	4,181	-14.8	-25.7	3	11.1
600	30	4,836	-17.0	-28.9	31	12.1
550	30	5,544	-22.8	-33.2	3	13.1
500	30	6,309	-27.9	-38.0	31	14.9
450	30	7,144	-34.1	-44.4	3	16.3
400	30	8,069	-40.8	-44.9	3	18.0
350	30	9,100	-47.6		3	20.1
300	30	10,290	-54.3		26	21.5
250	27	11,728	-53.0		27	19.9
200	27	13,380	-53.1		27	17.4
175	27	14,253	-53.9		27	16.5
150	27	15,347	-54.6		27	15.6
125	27	16,674	-56.2		27	14.7
100	27	18,447	-58.3		33	14.1
80	27	19,427	-60.1		36	14.9
70	27	20,588	-60.5		04	14.8
60	27	22,013	-62.4		05	14.7
50	27	23,853	-64.7		06	14.5
40	27	25,922	-63.8		06	14.3
30	26	28,159	-58.4		07	13.6
20	25	30,915	-50.7		09	12.6
15	25	32,908	-46.7		09	12.0
10	24	35,221	-42.4		09	11.4
7	24	37,284	-38.2		09	10.9

SPOKANE, WA
931 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	782	3.4	-.5	16	1.1
1000	30	991	4.5	-2.6	16	1.8
950	30	1,455	4.5	-6.4	19	3.0
900	30	1,943	4.6	-8.5	22	3.1
850	30	2,455	-4.0	-12.2	20	4.4
800	30	2,996	-7.4	-15.1	20	4.0
750	30	3,570	-10.6	-21.4	22	3.4
700	30	4,182	-14.5	-24.4	22	4.2
650	30	4,836	-18.8	-28.1	21	5.5
600	30	5,539	-23.4	-32.6	22	7.5
550	30	6,302	-28.7	-38.2	22	8.7
500	30	7,135	-34.9	-43.3	21	9.0
450	30	8,056	-41.9		22	9.1
400	30	9,080	-49.2		23	8.0
350	30	10,261	-54.6		23	8.6
300	30	11,687	-54.5		24	8.8
250	30	12,546	-53.9		24	7.9
200	30	13,542	-52.4		24	7.3
175	30	14,718	-53.3		23	6.4
150	30	16,151	-54.3		23	5.1
125	30	17,579	-55.2		22	3.2
100	30	19,431	-55.4		18	.9
80	30	19,414	-55.4		14	2.5
70	30	20,580	-54.6		10	3.4
60	30	22,009	-54.3		09	5.1
50	30	23,859	-53.8		09	7.8
40	27	25,032	-53.4		08	9.4
30	27	26,478	-52.3		09	11.3
20	26	28,334	-51.2		09	11.0
15	26	29,931	-50.2		09	10.6
10	26	31,974	-48.0		10	10.2
7	26	33,430	-35.8		10	9.8

TAMPA BAY, FL
1 1 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	8	15.3	13.6	06	1.6
1000	30	148	18.9	15.8	08	2.4
950	30	588	17.1	9.1	09	2.0
900	30	1,048	14.5	6.6	08	.6
850	30	1,528	11.8	3.5	15	.1
800	30	2,034	9.6	-4.7	11	.3
750	30	2,566	6.0	-6.3	10	1.2
700	30	3,130	3.9	-7.4	10	2.5
650	30	3,729	.1	-8.6	09	3.3
600	30	4,382	-3.1	-9.1	09	5.5
550	30	5,050	-7.5	-14.5	09	7.3
500	30	5,785	-12.4	-28.9	8	9.6
450	30	6,582	-17.9	-32.1	8	11.8
400	30	7,452	-24.4	-38.1	8	13.9
350	30	8,414	-31.4	-44.1	8	16.7
300	30	9,484	-39.8	-50.2	8	19.6
250	30	10,705	-48.9		8	25.7
200	30	12,143	-56.7		8	31.0
175	30	12,984	-59.		8	31.0
150	30	13,942	-62.3		8	29.3
125	30	15,058	-66.1		7	24.9
100	30	16,400	-69.3		8	18.4
80	30	17,727	-71.2		8	10.3
70	30	18,520	-69.8		7	7.0
60	30	19,442	-67.8		31	5.4
50	30	20,550	-63.4		8	4.8
40	30	21,933	-58.1		01	4.3
30	27	23,743	-56.4		27	4.3
20	27	26,910	-53.6		33	4.3
15	26	28,267	-44.7		26	6.1
10	11	31,052	-35.2		11	7.8

TOPEKA, KS
984 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	268	9.0	5.9	14	.8
1000	30	560	10.9	4.3	18	2.4
950	30	1,011	10.0	2.4	20	3.4
900	30	1,485	8.2	-1.4	23	4.7
850	30	1,984	6.2	-3.5	24	4.0
800	30	2,511	3.6	-7.6	24	4.0
750	30	3,067	.1	-10.2	25	4.8
700	30	3,658	-3.3	-14.3	25	8.3
650	30	4,286	-7.7	-19.0	25	8.5
600	30	4,957	-12.1	-23.3	25	10.6
550	30	5,679	-17.2	-28.9	25	11.9
500	30	6,461	-22.7	-34.0	25	11.9
450	30	7,314	-29.3	-39.6	25	13.8
400	30	8,256	-36.4	-45.3	26	15.0
350	30	9,304	-44.9		26	17.4
300	30	10,499	-53.8		26	20.8
250	30	11,907	-60.1		26	24.6
200	30	12,742	-58.8		27	29.7
175	30	13,714	-57.2		28	17.7
150	30	14,864	-58.8		27	13.8
125	30	16,240	-60.6		27	10.1
100	30	17,645	-61.5		28	8.0
80	30	18,473	-61.5		30	3.3
70	30	19,430	-61.0		34	1.5
60	30	20,565	-59.4		04	3.1
50	30	21,968	-57.8		07	4.0
40	30	23,790	-55.9		07	8.0
30	30	26,393	-54.5		07	8.2
20	29	28,266	-49.2		07	5.6
15	29	29,933	-45.4		08	4.5
10	29	30,839	-48.9			

TRUK, CAROLINE IS.
1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	2	28.2	24.1	06	2.2
1000	30	92	27.2	23.6	07	2.8
950	30	545	23.6	21.0	08	4.3
900	30	1,017	20.9	16.9	09	4.1
850	30	1,511	18.0	12.9	09	3.5
800	30	2,029	15.9	8.4	10	3.0
750	30	2,576	13.5	4.5	11	2.4
700	30	3,154	10.2	.9	10	2.1
650	30	3,768	7.0	-2.9	09	2.6
600	30	4,423	3.5	-7.6	09	3.4
550	30	5,124	-.4	-11.7	09	4.7
500	30	5,881	-4.5	-16.4	09	5.4
450	30	6,704	-9.2	-21.0	09	5.7
400	30	7,606	-15.0	-26.6	09	5.1
350	30	8,606	-21.5	-32.9	09	4.7
300	30	9,721	-29.9	-41.2	09	4.5
250	30	10,993	-40.4	-52.0	10	5.7
200	30	12,472	-53.1		11	6.2
175	30	13,320	-60.0		09	6.1
150	30	14,264	-67.9		06	6.9
125	30	15,339	-75.7		06	8.4
100	30	16,607	-81.2		08	7.7
80	30	17,865	-78.1		31	.9
70	30	18,638	-73.4		27	6.8
60	30	19,554	-67.6		27	10.3
50	30	20,864	-63.6		27	11.7
40	30	22,046	-60.4		27	12.1
30	30	23,459	-55.6		28	8.8
20	29	25,029	-52.3		28	2.8
15	26	26,483	-49.4		12	5.2
10	25	27,381	-46.7		10	13.5
7	10	31,123	-39.5			

TUCSON, AZ
926 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	789	12.2	-1.6	16	2.1
1000	30	993	15.0	-2.6	18	1.8
950	30	1,474	12.2	-4.8	20	2.3
900	30	1,979	8.9	-7.6	22	4.3
850	30	2,510	5.4	-1.9	22	6.8
800	30	3,069	1.6	-15.2	22	7.7
750	30	3,662	-2.4	-19.1	22	8.4
700	30	4,292	-6.8	-22.9	23	9.6
650	30	4,965	-11.4	-27.0	24	10.5
600	30	5,688	-17.1	-31.7	24	11.9
550	30	6,469	-23.4	-36.3	25	13.5
500	30	7,321	-29.2	-41.6	25	15.8
450	30	8,265	-36.0	-47.3	25	18.4
400	30	9,315	-44.6		26	21.1
350	30	10,518	-52.2		26	23.9
300	30	11,940	-57.8		26	26.3
250	30	12,781	-58.2		26	23.9
200	29	13,748	-59.6		25	21.5
175	29	14,885	-61.6		25	18.3
150	29	16,260	-63.5		25	14.8
125	29	17,620	-63.8		24	7.6
100	29	18,445	-64.1		24	3.9
80	29	19,380	-65.9		23	1.0
70	29	20,504	-62.7		11	1.0
60	27	21,895	-60.2		07	3.8
50	27	23,700	-58.6		07	5.3
40	26	24,855	-55.4		08	5.5
30	26	26,288	-52.8		08	5.9
20	22	28,159	-48.4		07	5.6
15	11	30,915	-40.7			
10	11	30,915	-40.7			

VANDENBERG AFB, CA
1004 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	100	8.0	5.2	04	.8
1000	28	138	8.6	4.9	23	1.1
950	30	557	8.9	1.6	36	3.5
900	30	1,004	7.4	-1.9	35	3.2
850	30	1,472	5.1	-7.1	32	2.9
800	30	1,965	3.5	-11.5	31	3.5
750	30	2,487	1.4	-14.7	30	4.4
700	30	3,039	-1.6	-19.1	29	5.1
650	30	3,626	-4.6	-21.6	28	6.1
600	30	4,252	-8.4	-24.7	28	7.4
550	30	4,921	-12.6	-29.6	28	9.1
500	30	5,642	-18.0	-33.5	28	9.8
450	30	6,420	-23.8	-37.9	28	10.5
400	30	7,270	-30.3	-43.6	28	11.6
350	30	8,199	-37.2	-49.1	28	13.3
300	30	9,254	-44.6		28	15.0
250	30	10,454	-52.5		28	17.1
200	30	11,875	-58.3		28	18.1
175	30	12,715	-58.1		28	18.1
150	30	13,688	-57.9		27	16.3
125	29	14,858	-59.6		27	14.1
100	29	16,217	-61.2		26	10.0
80	29	17,602	-61.4		26	6.1
70	29	18,431	-61.6		25	3.9
60	28	19,388	-61.7		25	1.7
50	28	20,520	-60.6		11	1.1
40	24	21,914	-59.0		09	3.4
30	24	23,731	-56.5		09	5.5
20	23	26,883	-53.4		08	5.4
15	23	28,732	-52.4		08	5.2
10	23	30,326	-52.4		08	5.2
7	22	28,201	-48.6		10	2.6
10	19	30,910	-42.2		27	2.2
7	11	33,430	-35.8			

VICTORIA, TX
1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	33	17.5	10.9	14	.7
1000	28	122	18.7	10.1	14	2.8
950	30	562	17.2	11.7	16	6.3
900	30	1,023	15.0	6.5	17	7.1
850	30	1,505	13.2	2.2	18	7.1
800	30	2,014	11.1	-1.1	19	6.4
750	30	2,550	8.3	-5.6	22	5.4
700	30	3,116	5.1	-10.0	24	5.6
650	30	3,718	1.4	-13.9	26	6.6
600	30	4,357	-2.8	-17.2	26	8.4
550	30	5,040	-7.9	-21.9	26	9.4
500	30	5,774	-13.2	-26.3	26	11.6
450	30	6,568	-18.7	-30.2	26	14.2
400	30	7,436	-24.5	-35.4	27	17.4
350	30	8,397	-31.9	-41.5	26	20.5
300	30	9,465	-40.4	-48.6	26	23.6
250	30	10,682	-50.2		26	27.6
200	30	12,107	-59.4		26	31.8
175	30	12,938	-61.5		26	31.5
150	30	13,890	-62.8		27	27.6
125	29	15,005	-65.6		26	21.7
100	28	16,352	-68.9		26	14.6
80	28	17,685	-69.3		26	8.4
70	28	18,485	-68.3		27	4.0
60	28	19,413	-66.6		28	1.0
50	28	20,526	-63.4		04	1.6
40	24	21,907	-60.5		06	1.8
30	24	23,717	-56.3		05	2.5
20	23	26,883	-53.7		03	2.5
15	23	28,722	-50.7		07	1.2
10	22	28,218	-44.9		25	3.5
7	15	30,993	-37.1		27	7.8

WAKE IS., PACIFIC AREA
1018 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C) + −	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	5	25.1	21.8	10	7.6
1000	30	144	24.1	19.7	09	9.0
950	30	591	20.1	17.0	09	8.9
900	30	1,056	16.8	13.3	10	9.3
850	30	1,542	13.9	8.2	10	7.7
800	30	2,053	12.3	1.7	09	6.4
750	30	2,592	10.3	-4.1	10	6.0
700	30	3,164	8.2	-10.2	07	4.8
650	30	3,773	5.4	-13.8	07	4.0
600	30	4,422	1.8	-17.2	05	3.3
550	30	5,118	-2.4	-21.4	05	2.4
500	30	5,867	-7.6	-25.9	01	2.0
450	30	6,679	-12.8	-30.3	33	3.4
400	30	7,567	-19.1	-35.7	31	5.3
350	30	8,550	-25.9	-40.7	30	9.3
300	30	9,646	-33.8	-47.6	30	13.5
250	30	10,901	-42.5		30	18.3
200	30	12,372	-53.8		29	19.7
175	29	13,219	-60.0		29	19.5
150	28	14,168	-66.5		30	16.8
125	28	15,252	-73.9		29	14.8
100	28	16,533	-79.4		31	9.6
80	28	17,795	-80.2		33	9.2
70	28	18,560	-76.9		01	1.0
60	28	19,458	-71.8		08	1.1
50	24	20,549	-66.0		16	1.4
40	24	21,920	-60.8		08	1.5
30	24	23,727	-56.2		08	2.4
20	24	26,340	-49.9		06	2.3
15	24	28,232	-47.0		03	1.3
10	24	30,951	-41.0		07	3.9
7	24	33,272	-40.1			

WALLOPS ISLAND, V

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb)	Number of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m/s)
RAWINSONDE, OA 1012 MB						
SFC	30	44	12.5	1..	28	.4
1000	30	157	15.9	11.8	27	.4
950	30	684	16.0	5.5	29	.8
900	30	1,243	13.9	.6	29	1.3
850	30	1,811	10.7	-1.1	30	2.3
800	30	2,025	8.3	-5.2	29	2.8
750	30	2,555	5.7	-10.2	29	3.9
700	30	3,106	2.5	-14.9	29	4.4
650	30	3,712	-.7	-19.2	29	5.0
600	30	4,346	-4.8	-21.7	29	4.5
550	30	5,015	-9.3	-24.6	28	8.0
500	30	5,754	-14.3	-28.3	28	10.3
450	30	6,545	-19.9	-33.5	28	12.1
400	30	7,448	-26.2	-38.3	28	14.7
350	30	8,363	-33.3	-43.9	28	17.4
300	30	9,427	-41.5	-48.8	28	19.4
250	27	10,638	-50.9		28	21.8
200	28	12,065	-57.9		28	23.5
175	28	12,902	-60.1		28	24.2
150	28	13,844	-61.3		28	25.6
125	27	14,886	-63.7		28	26.8
100	27	16,044	-66.5		28	27.9
80	27	17,690	-67.6		28	28.8
70	27	18,495	-67.1		29	28.8
60	27	19,409	-65.5		32	4.1
50	27	20,546	-62.3		34	1.6
40	27	21,932	-59.9		04	2.8
30	27	23,746	-56.2		04	3.9
25	26	24,911	-53.4		05	2.7
20	26	26,361	-49.3		05	1.6
15	23	28,203	-44.1		27	3.8
10	16	31,023	-35.9		27	12.5

Standard pressure surface (mb)	Number of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m/s)
WINNEMUCCA, NV 884 MB						
SFC	30	1,319	11.8	-6.8	24	.4
1000						
950						
900						
850	30	1,461	4.3	-5.4	31	1.0
800	30	1,953	2.3	-7.7	29	2.4
750	30	2,471	-1.5	-10.3	27	3.6
700	30	3,016	-5.3	-13.9	28	4.2
650	30	3,595	-8.7	-17.7	25	5.3
600	30	4,210	-12.6	-22.2	26	6.2
550	30	4,869	-16.8	-26.5	24	6.7
500	30	5,578	-21.6	-30.9	25	7.8
450	30	6,347	-27.0	-36.6	25	8.4
400	30	7,184	-33.6	-42.5	25	10.7
350	30	8,110	-40.5	-46.2	26	12.2
300	30	9,142	-47.4		25	12.6
250	30	10,330	-53.8		26	14.8
200	30	11,753	-56.2		27	14.4
175	29	12,603	-55.2		26	12.6
150	30	13,589	-54.7		26	10.7
125	29	14,752	-56.5		25	9.2
100	29	16,157	-57.3		24	5.6
80	29	17,575	-58.1		21	3.3
70	29	18,415	-58.8		19	1.5
60	29	19,382	-58.6		12	1.7
50	29	20,529	-58.0		10	2.9
40	29	21,937	-56.9		09	5.7
30	29	23,767	-55.6		09	7.5
25	29	24,930	-54.8		09	9.1
20	29	26,361	-53.4		09	9.5
15	28	28,230	-50.4		08	9.0

Standard pressure surface (mb)	Number of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m/s)
[illegible], NV 849 MB						
SFC	30	1,487	3.6	-6.8	21	..
1000						
950						
900						
850	18	1,501	5.1	-7.8	20	1.4
800	[illegible]	[illegible]	7.6	-7.9	24	3.7
750	28	2,504	3.9	-10.4	23	4.5
700	28	3,061	-.1	-12.6	23	4.8
650	28	3,650	-3.9	-18.0	23	[illegible]
600	[illegible]	[illegible]	-7.9	-22.7	23	10.9
550	30	4,948	-12.7	-27.0	24	10.4
500	30	5,667	-18.2	-31.2	24	10.8
450	30	6,446	-24.2	-36.2	24	11.3
400	30	7,292	-31.1	-41.1	24	13.3
350	[illegible]	[illegible]	-37.8	-46.9	25	14.8
300	29	9,272	-45.1		25	17.3
250	29	[illegible]	-52.7		26	19.0
200	[illegible]	[illegible]	-57.3		26	18.8
175	[illegible]	12,739	-57.6		25	19.4
150	28	13,712	-57.8		25	17.7
125	29	14,861	-59.5		25	14.8
100	29	16,248	-62.0		25	[illegible]
80	26	17,628	-62.8		25	A.1
70	25	18,451	-63.4		25	3.3
60	25	19,399	-63.1		19	1.4
50	24	20,525	-61.4		09	3.3
40	[illegible]	21,912	-60.0		08	5.0
30	22	23,718	-57.5		08	8.1
25	[illegible]	24,874	-56.0		08	9.0
20	21	26,306	-53.0		08	8.9
15	17	28,176	-48.8		08	8.5

Standard pressure surface (mb)	Number of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m/s)
[illegible]						
SFC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
800	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
750	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
700	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
650	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
600	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
350	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
175	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
150	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
125	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Standard pressure surface (mb)	Number of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m/s)
[illegible] 877 MB						
SFC	30	1,198	2.7	-5.9	25	.2
1000						
950						
900						
850	30	1,456	8.7	-5.7	25	.7
800	30	1,955	5.5	-8.2	21	2.1
750	30	2,479	1.7	-10.9	21	2.7
700	30	3,031	-2.2	-14.0	21	3.5
650	30	3,615	-6.0	-18.3	22	4.3
600	30	4,237	-9.7	-23.4	24	5.6
550	30	4,903	-14.3	-28.2	24	6.9
500	30	5,619	-19.5	-32.9	25	7.8
450	30	6,393	-25.2	-37.0	25	8.7
400	30	7,237	-31.7	-42.3	25	9.9
350	30	8,171	-38.6	-47.5	25	11.5
300	30	9,210	-46.1		26	13.1
250	30	10,404	-53.0		26	14.2
200	30	11,825	-57.4		26	16.2
175	30	12,670	-56.6		26	14.9
150	30	13,650	-56.2		26	13.7
125	30	14,806	-58.0		25	11.1
100	29	16,204	-60.5		25	8.6
80	29	17,595	-60.1		24	4.8
70	29	18,428	-60.7		24	3.0
60	29	19,386	-61.2		20	1.5
50	29	20,521	-60.0		10	1.8
40	29	21,919	-58.7		09	4.0
30	29	23,734	-57.1		09	7.4
25	25	24,893	-55.6		09	7.1
20	22	26,322	-53.6		08	7.1
15	17	28,191	-50.2		09	4.9

Standard pressure surface (mb)	Number of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m/s)
[illegible]						
SFC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
800	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
750	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
700	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
650	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
600	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
350	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
175	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
150	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
125	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Standard pressure surface (mb)	N	D	B	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m/s)
[illegible]					
SFC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
800	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
750	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
700	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
650	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
600	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
350	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
175	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
150	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
125	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun. APRIL 1976

ALBUQUERQUE, NM

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass 4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
1	1.03	1.12	1.24	1.37	1.56	----	----	----	----
2	.94	1.03	1.15	1.30	1.48	1.25	----	----	----
3	.84	.97	1.10	1.28	1.44	(1.19)	----	----	----
4	----	----	----	1.25	1.43	----	----	----	----
5	.77	.87	1.01	1.19	----	----	----	.90	.76
6	(.91)	1.04	(1.13)	----	----	----	----	----	----
7	----	----	----	1.25	1.46	1.30	1.14	1.02	.92
9	----	----	----	----	----	1.17	.97	----	----
10	.83	.95	----	----	----	1.18	----	----	----
11	----	----	----	----	1.45	----	----	----	----
12	.76	.88	1.10	1.15	----	----	----	----	----
15	----	----	----	----	----	1.26	----	1.01	.92
18	----	----	----	1.28	----	----	----	----	----
19	----	----	----	----	----	----	----	(.61)	(.48)
20	.82	.93	1.06	1.23	1.42	1.18	.97	.80	.71
21	.71	.84	1.00	1.19	1.43	(1.19)	(.98)	(.80)	.67
22	----	----	----	(1.27)	(1.44)	(1.12)	(.83)	(.70)	----
23	.85	.97	1.09	1.24	1.41	(1.09)	(.71)	(.58)	(.12)
24	.95	1.06	1.18	1.34	1.49	----	1.15	1.02	.90
25	.92	1.02	1.14	1.28	----	----	----	----	.59
26	.84	.96	1.08	1.26	1.45	1.11	.97	.85	.72
27	----	----	----	----	----	----	.92	.75	.63
28	.69	.79	.94	1.13	----	1.11	.84	.69	(.53)
30	.80	.90	1.01	1.16	----	----	----	----	----
Averages	.84	.96	1.11	1.24	1.46	1.20	.99	.88	.76

MADISON, WI

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass 4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
2	I .95	I 1.04	I 1.14	I 1.28	----	----	----	----	----
3	I .44	I .57	I .70	H .88	H 1.04	----	----	----	----
1	I .82	I .92	I 1.04	H 1.22	I 1.36	I 1.22	S 1.07	S .91	S .85
6	I .78	I .88	I .99	S 1.04	S 1.29	S 1.13	S .99	S .85	S .72
7	M .76	M .86	M .94	S 1.14	----	----	----	----	----
8	M .76	M .86	M .95	S 1.15	S 1.29	S 1.15	S .97	S .80	S .75
9	M .74	M .85	M .98	M 1.13	M 1.31	----	----	----	----
12	S .78	S .89	S 1.03	M 1.20	M 1.38	M 1.20	S 1.02	S .88	S .76
13	M .58	M .76	M .85	M 1.02	----	W .88	----	----	----
19	M .83	S .91	----	S 1.20	----	----	----	----	----
22	M .51	----	----	----	----	----	----	----	----
26	S .76	S .88	M 1.00	M 1.17	M 1.32	----	----	----	----
28	----	M .82	M .95	M 1.12	----	----	----	----	----
29	S .79	S .88	S 1.00	M 1.15	----	----	----	----	----
Averages	.73	.85	.96	1.13	1.28	1.12	1.01	.87	.77

MAUNA LOA OBSERVATORY, HA

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass 3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
1	----	----	----	1.48	----	1.45	1.31	1.24	1.15
2	1.22	1.30	1.40	1.50	----	----	----	----	----
3	----	1.23	1.32	1.44	----	----	----	----	----
4	1.18	1.25	1.34	1.50	----	1.50	1.37	1.27	1.19
5	1.24	1.32	1.42	1.53	----	1.50	1.36	1.27	1.19
7	----	----	----	----	----	----	1.29	1.20	1.11
15	1.27	1.32	1.39	----	----	----	----	----	----
16	----	1.24	1.33	1.44	----	----	----	----	----
18	1.14	1.23	1.32	1.44	----	----	----	----	----
19	1.17	1.25	1.35	1.46	1.59	1.45	1.33	1.25	1.15
20	----	----	----	----	1.61	1.46	1.34	1.25	1.17
21	1.33	1.38	1.43	1.51	1.60	1.35	----	----	----
22	1.15	1.24	1.34	1.46	1.59	----	----	----	----
23	1.26	1.29	1.38	1.50	1.60	1.18	1.35	1.27	1.18
24	----	----	1.38	1.49	----	----	----	----	----
26	1.16	1.24	1.34	1.45	----	----	----	----	----
27	----	----	----	----	1.60	----	----	----	----
Averages	1.21	1.27	1.36	1.48	1.55	1.45	1.34	1.25	1.16

BLUE HILL OBSERVATORY, MA

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass 4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
3	.51	.60	.69	.84	1.00	----	----	----	----
5	----	----	----	----	----	.87	.71	.61	.55
8	.64	.70	.80	.92	----	----	----	----	----
13	.47	.52	.63	.83	1.10	.92	.77	.63	.48
Averages	.54	.61	.71	.86	1.05	.90	.74	.62	.52

OMAHA, NE

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass 4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
1	.97	1.09	1.20	1.36	1.46	1.25	1.12	.96	.84
2	.75	.88	1.03	1.32	----	----	----	----	----
1	----	----	----	----	1.28	HS1.01	HS .84	HS .68	HS .52
5	.16	.38	.74	.90	----	1.08	----	.76	.60
9	----	----	----	HM .82	----	HM .96	HM .74	HM .50	HM .40
10	----	----	----	----	HM1.07	HM .79	----	----	----
11	----	----	----	----	----	1.23	1.07	.87	.73
12	.65	.75	.90	1.09	1.24	1.00	HM .84	HM .60	.46
16	----	----	----	----	1.39	HS1.08	HS .96	HS .78	HM .65
18	----	----	----	----	----	HS1.15	.98	.82	HS .71
21	----	----	----	----	1.25	.98	----	----	----
22	----	----	.89	1.10	1.27	.97	----	----	----
25	----	----	----	----	----	1.20	1.00	.81	.73
Averages	.70	.82	.95	1.09	1.28	1.05	.94	.70	.62

TUCSON, AZ

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass 4.64	3.71	2.78	1.86	*	1.86	2.78	3.71	4.64
1	.96	1.07	1.21	1.35	----	----	----	----	----
2	.79	.89	1.03	1.18	1.42	1.25	1.09	.98	.88
3	.84	.95	1.09	1.25	1.45	1.24	1.08	.96	.87
4	.89	.99	1.12	1.28	1.43	1.26	1.06	.93	.85
5	.80	.92	1.06	1.24	1.43	1.26	1.11	----	----
6	----	----	----	----	----	1.22	1.04	.90	.79
7	.81	.92	1.04	1.20	1.43	----	----	----	----
8	----	----	----	----	1.43	1.18	1.01	----	----
9	----	----	----	----	1.43	1.20	1.00	.86	.77
10	.82	.94	1.09	1.26	1.43	1.26	----	----	----
11	.88	.97	1.10	1.28	1.43	1.22	1.07	.92	.83
12	----	----	1.02	1.18	1.37	----	----	----	----
15	----	----	1.04	1.23	----	----	----	----	----
17	.76	.88	1.01	1.20	1.37	1.16	.96	.83	.72
18	.82	.94	1.07	1.24	1.42	1.15	.98	.86	.75
19	.77	.87	1.01	1.19	1.42	1.25	1.06	.94	.85
20	.89	.98	1.10	1.25	1.43	1.27	1.10	.99	.89
21	.88	.97	1.08	1.25	1.45	----	1.12	1.00	.90
22	.81	.93	1.06	1.23	1.37	1.19	1.03	.87	.75
23	.82	.94	1.04	1.26	1.44	1.24	1.02	.87	.76
24	.84	.94	1.07	1.25	1.44	1.21	1.02	----	.77
25	.78	.87	.99	1.21	----	----	----	----	----
26	.73	.81	.96	1.14	1.35	1.15	.93	.76	.64
27	----	----	----	----	1.30	1.04	----	----	----
28	.63	.79	.93	1.14	1.36	1.13	.94	.77	.65
29	.72	.85	.96	1.16	1.37	1.10	.92	.78	.67
30	.61	.75	.92	1.12	1.41	1.19	1.05	.93	.82
Averages	.80	.91	1.01	1.22	1.41	1.20	1.03	.89	.79

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
ALB[illegible]QUE NM	604	6[illegible]	60[illegible]	607	517	491	6[illegible]	544	531	638	601	595	550	368	366	297	5[illegible]	[illegible]	464	673	662	5[illegible]	5[illegible]	654	562	7[illegible]	436	660	487	[illegible]		[illegible]
[illegible]MARCK ND	[illegible]	176	551	5[illegible]	515	5[illegible]	5[illegible]	548	320	447	577	548	412	306	249	1[illegible]	213	552	441	1[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	534	554	616	493	55[illegible]	551		4[illegible]
[illegible]ARIED ME	55	214	77	356	[illegible]	414	405	346	434	548	[illegible]	593	535	455	572	[illegible]	5[illegible]	68	345	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	437	445	618	110	[illegible]	553	572	4[illegible]	359
[illegible]L [illegible]ENTRO CA	642	6[illegible]	[illegible]	[illegible]	[illegible]	6[illegible]	61[illegible]	64[illegible]	646	638	646	607	[illegible]	356	520	579	639	644	[illegible]	661	[illegible]	[illegible]	678	[illegible]	654	678	682	698	655	7[illegible]	[illegible]	[illegible]
[illegible]L PASO TX	630	41[illegible]	[illegible]	[illegible]	615	549*	[illegible]	545	475	[illegible]	[illegible]	[illegible]	[illegible]	310	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	714	[illegible]	621*	[illegible]	[illegible]		[illegible]
[illegible]LY NY	537	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	314	630	632	454	370	[illegible]	305	[illegible]	490	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
[illegible]RESNO CA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
[illegible]ENEVA NY	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
[illegible]RAND JUN[illegible]TION [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
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NET RADIATION

Net radiation in langleys per day (8 a.m. to 8 a.m.) at Palmer, Alaska. APRIL 1976

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .	- 8	- 32	- 44	- 16	59	101	89	95	84	50	68	112	68	- 23	- 60	14	25	135	180	178	105	126	106	178	118	85	144	168	179	187		81

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals and monthly average (.2900 Å) at Ames, Iowa

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .																																

NO DATA RECEIVED

TOTAL OZONE DATA

These provisional ozone data are obtained from measurements made with a Dobson ozone spectrophotometer, and are applicable approximately to local apparent noon. The data are presented in the code (S 2 x x) defined in the August 1962 WMO circular entitled "PUBLICATION OF DATA FOR METEOROLOGICAL RESEARCH, WORLD OZONE DATA."

Units Milli-atmo-cms.

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean O_3

NO DATA RECEIVED

REFERENCE NOTES

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES: Dates in the table apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations)

+ And also on an earlier date or dates.
D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile data can be evaluated.

B Number of days maximum 21.1°C. or above for Alaskan Stations.
Y Peak Gust.
+ And also on an earlier date or dates.
U Indicates Urban site.
R Indicates Rural site.
Ø Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publication.

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters
°F. = $\frac{9}{5}$ x °C + 32
1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

° Includes crop damage.
C Crop damage.
* No occurrence of storms or unusual weather phenomena reported.
@ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
Ø For breakdown of "All Others," and for detailed listing of other storms, see the Environmental Data Service, NOAA, monthly publication STORM DATA.
‡ No Storm Data Report received for this State.
<> Report Incomplete.
† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5 Million
7	$5 Million to $50 Million
8	$50 Million to $500 Million
9	$500 Million to $5 Billion.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1/ Flooding continued at the end of the month.
NA Not available.

FLOOD STAGE DATA:

Highest Stage Observed
1/ Continued at end of month
‾‾ Highest Stage of Record
E Estimated
P Provisional (Flood Stage)
[Unknown

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
+ Observations for these stations are scheduled at 0000 G.C.T.
† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

REFERENCE NOTES

SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

()	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
*	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeterminable
BD	Blowing Dust	F	Fog	I	Intense Haze-indeterminable		
BN	Blowing Sand	GF	Ground Fog	K	Smoke	N	Sand
D	Dust	H	Haze	KI	Intense Smoke	S	Slight Haze-indeterminable
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		

SOLAR RADIATION TOTALS: Langley is the unit used to denote one gram calorie per square centimeter.

* Values with an asterisk are interpolated.
Data are only for those stations equipped with Eppley Model II sensors.

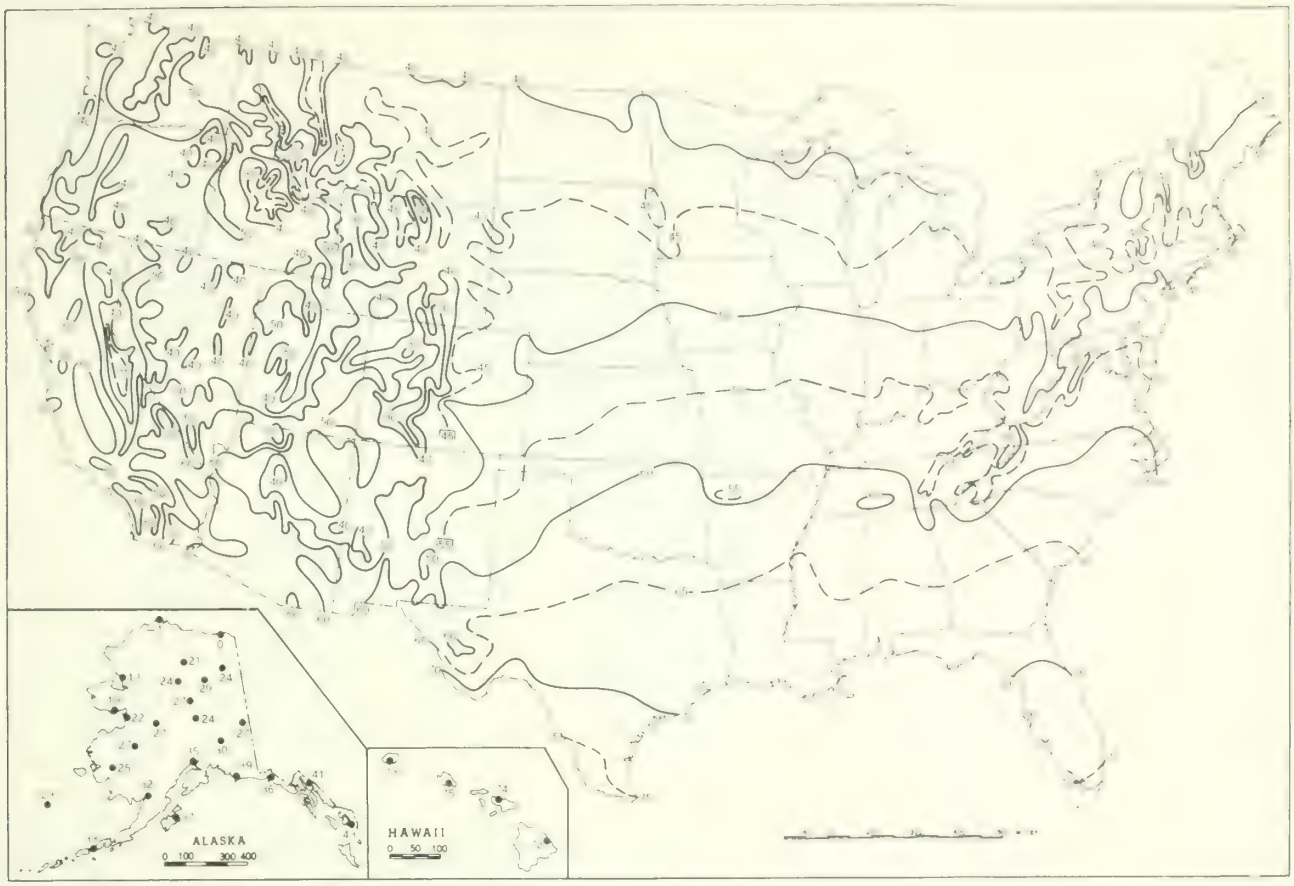
NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded Ω Ω Ω) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code $_{\lambda}$ s designates the type of measurement made.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), April.



B. Temperature Departure from 30 - Year Mean (°F 1941-70), April 1976

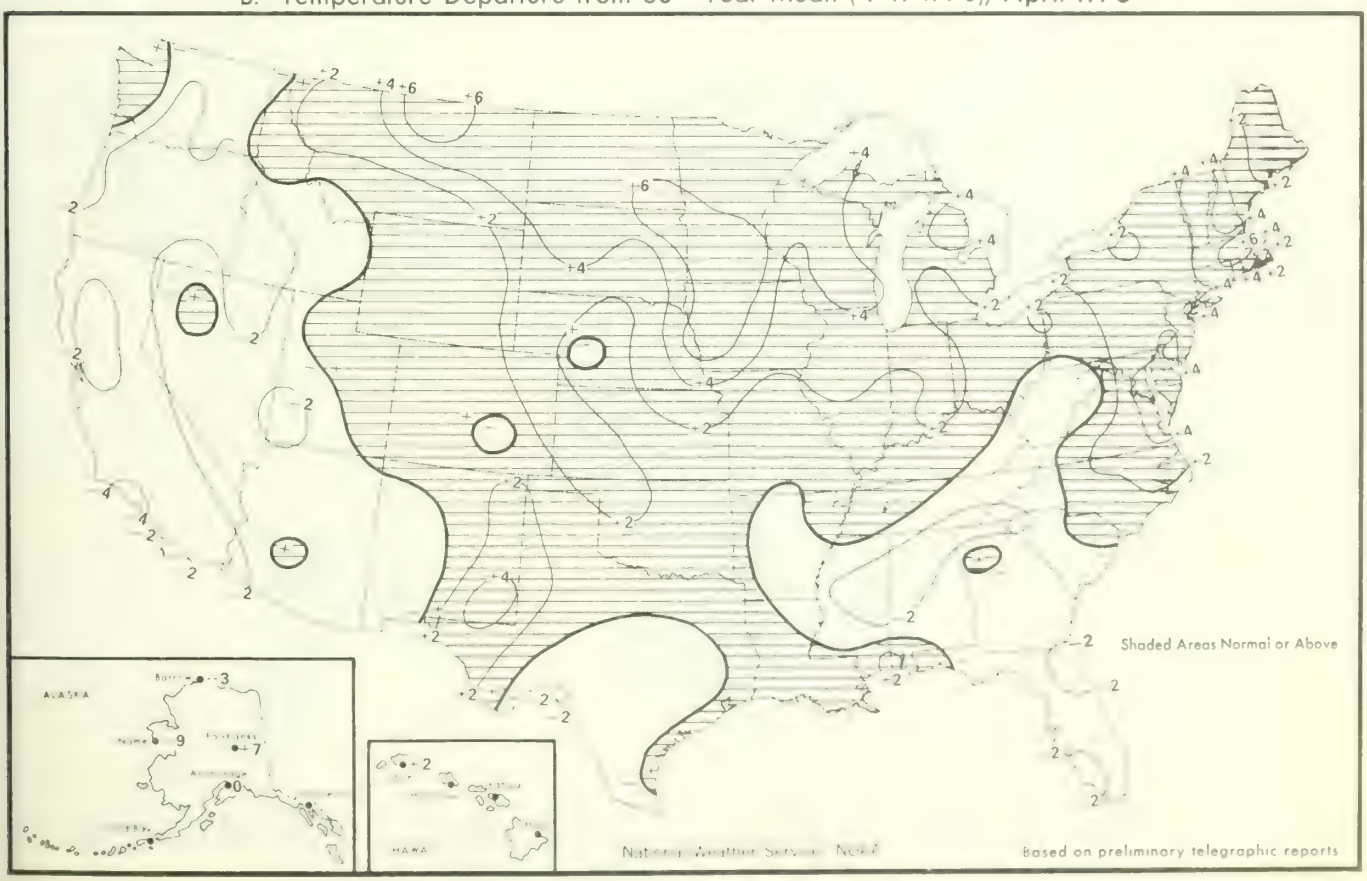
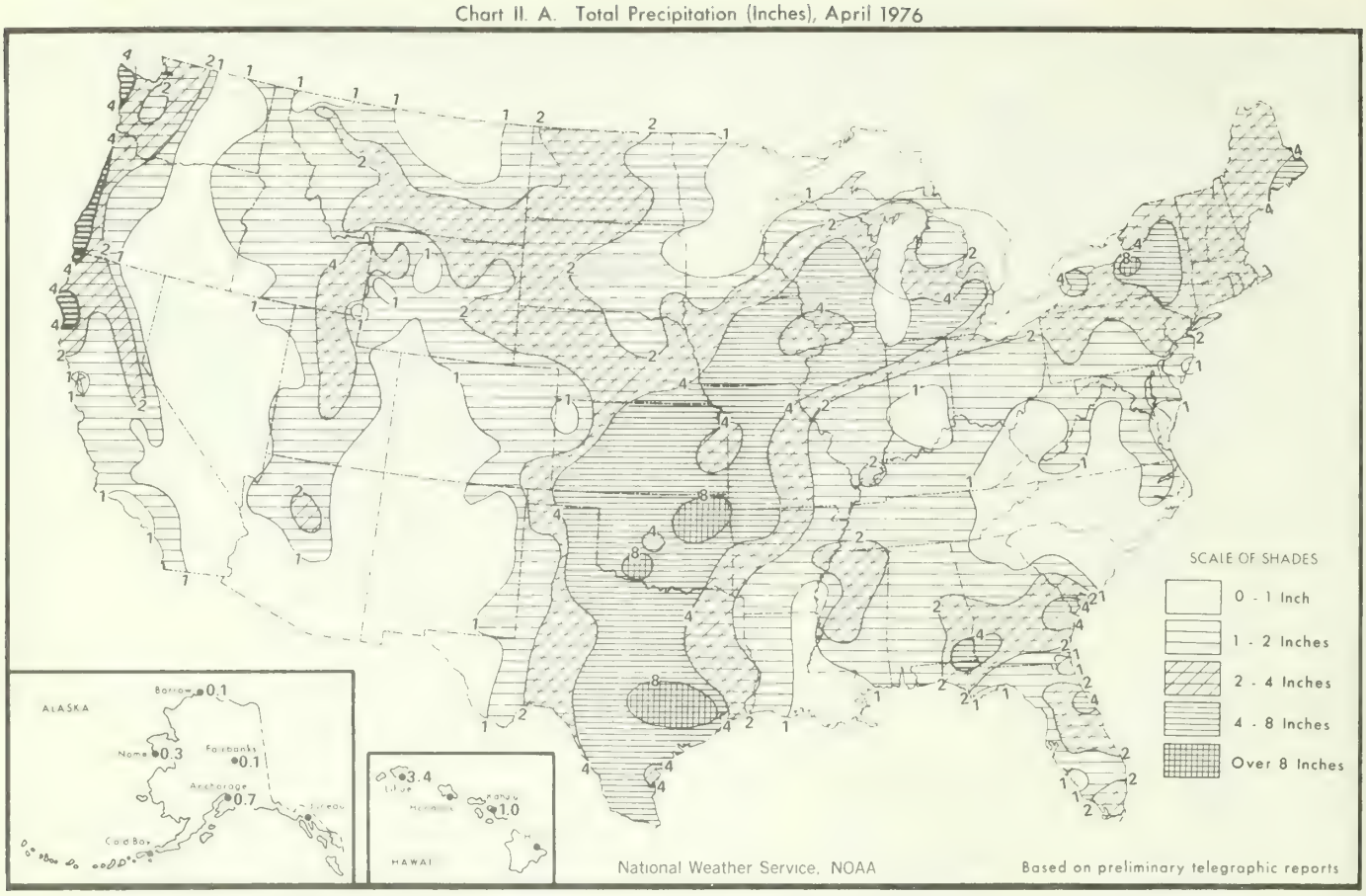
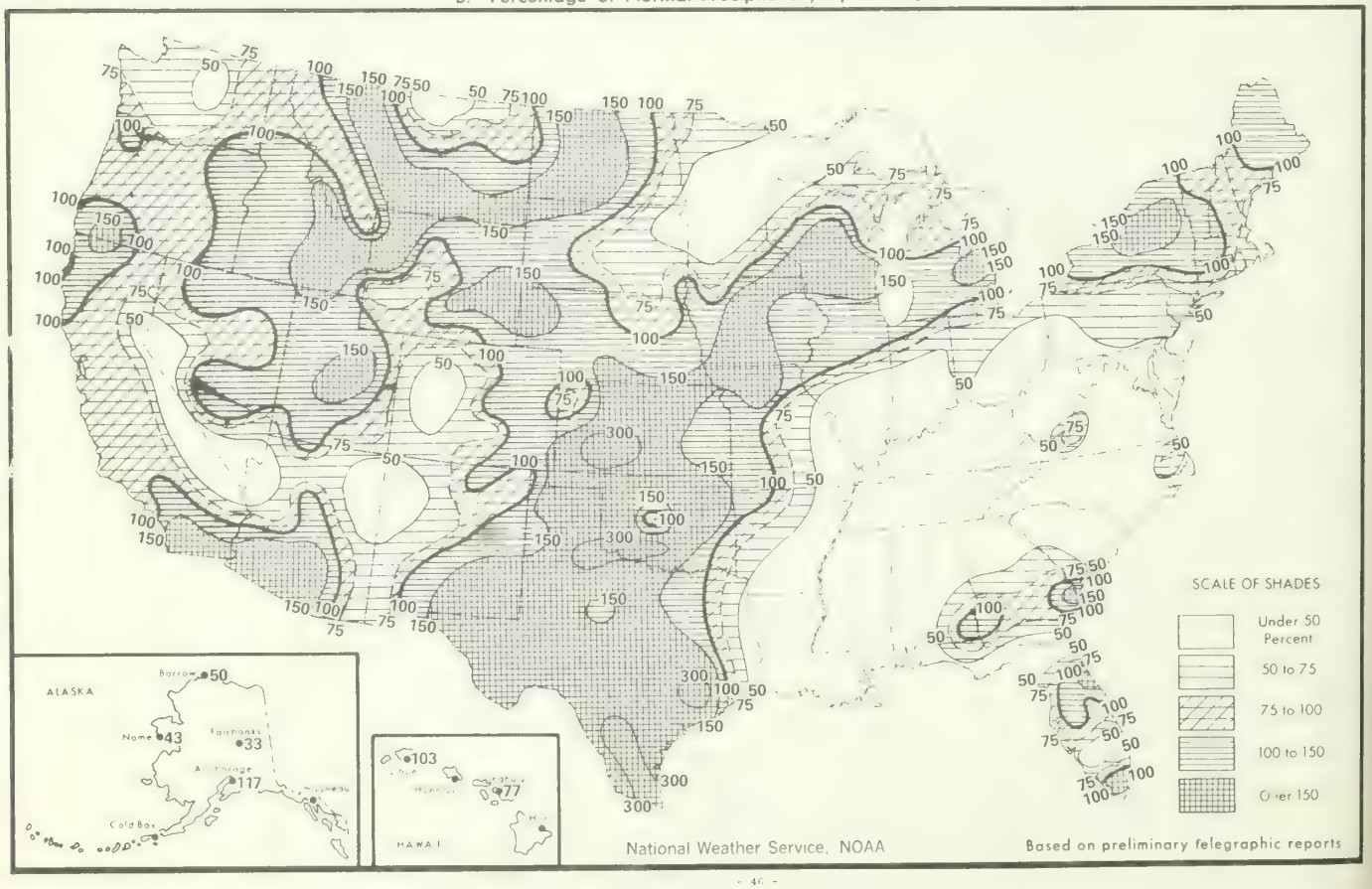
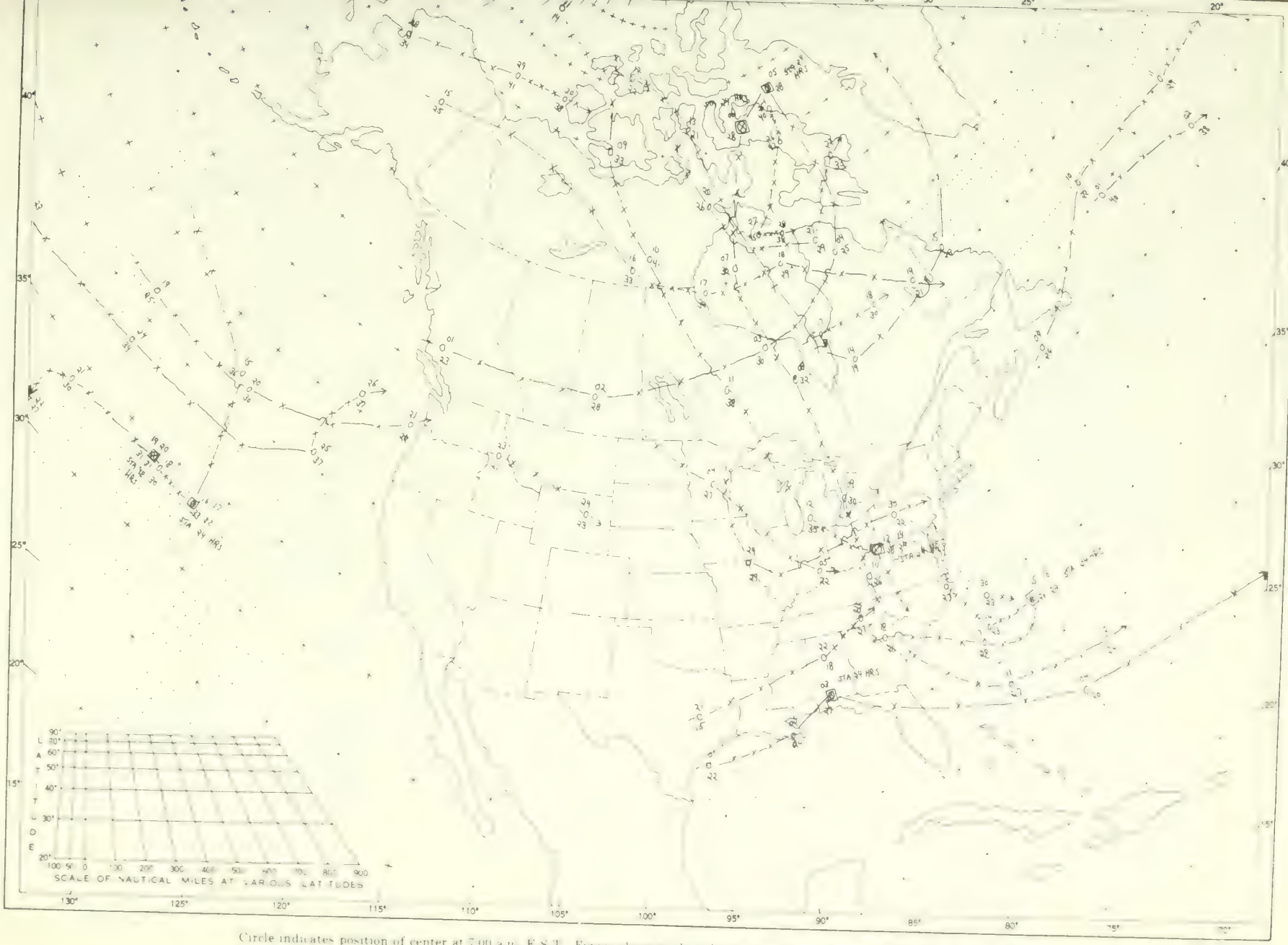


Chart II. A. Total Precipitation (Inches), April 1976



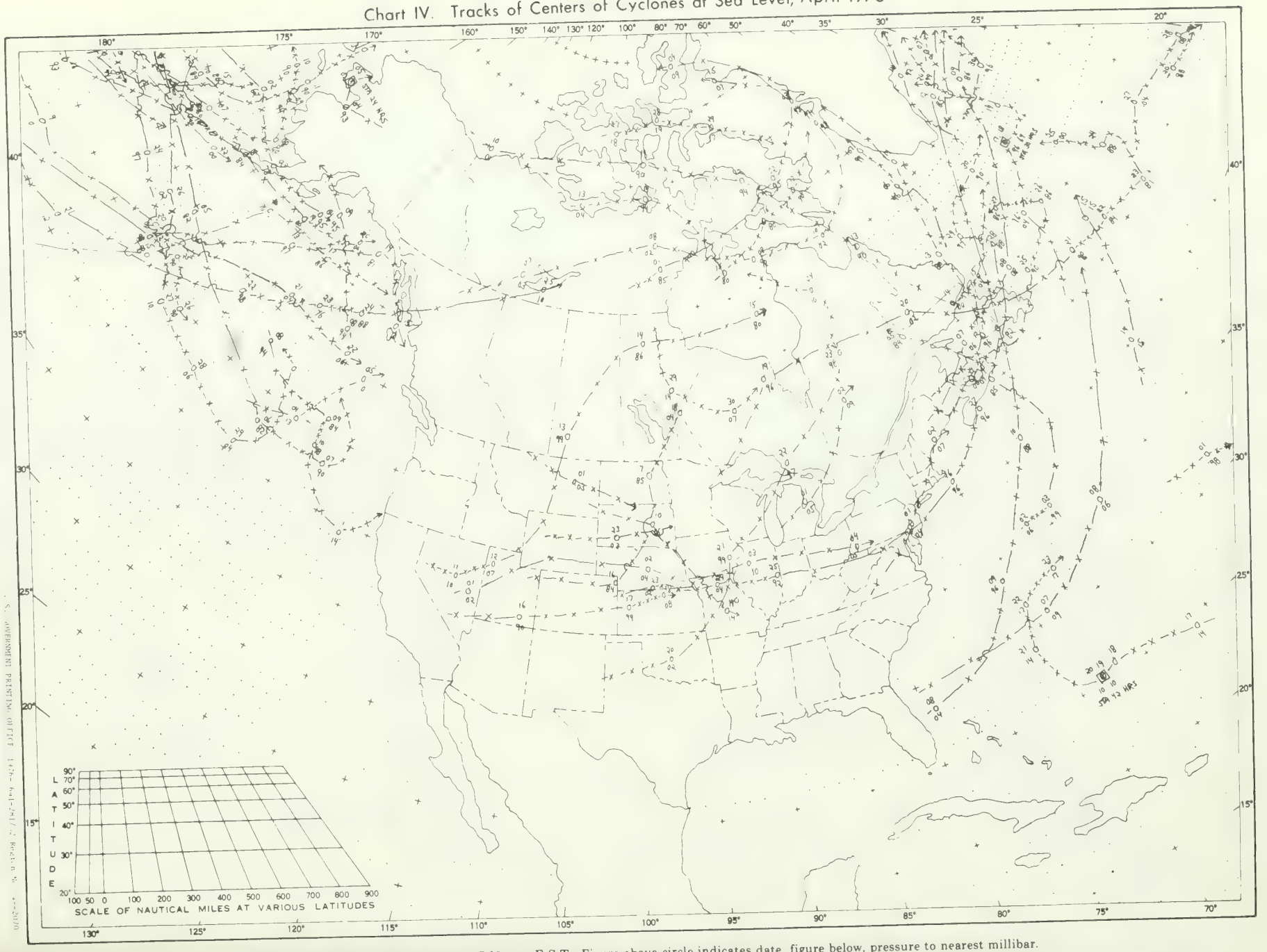
B. Percentage of Normal Precipitation, April 1976





Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. X's indicate intervening 6 hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IV. Tracks of Centers of Cyclones at Sea Level, April 1976



Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. X's indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

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MAY 1976 VOLUME 27 NUMBER 5

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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Daniel B. Mitchell

DIRECTOR
NATIONAL CLIMATIC CENTER

noaa NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION / ENVIRONMENTAL DATA SERVICE / NATIONAL CLIMATIC CENTER ASHEVILLE, N.C.

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

SUBSCRIPTION PRICE: $10.20 a year including annual summary; $9.10 additional for foreign mailing; 70¢ single copy; $1.80 annual summary. Make checks payable to Department of Commerce, NOAA; send payments and orders to: National Climatic Center, Federal Building, Asheville, NC 28801. Attn: Publications.

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

MAY 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

HIGHLIGHTS: Most of eastern United States accumulated substantial rainfall. Excessive amounts produced small stream flooding in the Southeast and in eastern Texas. A cloudburst in and around Tulsa, OK, caused substantial damage. In contrast, some important agricultural areas looked back on another month of comparatively dry weather. Areas from southwestern Ohio into west central Pennsylvania measured only half of normal precipitation. Dryness also plagued the northern Great Plains and upper Mississippi Valley, especially the eastern Dakotas and all but the southeastern tip of Minnesota where rainfall was less than one-third of normal. From the southern Rockies to the Great Lakes and eastward, cool weather retarded crop growth following a good start from warm weather in April.

Early in May a large polar outbreak moving southward and eastward spread record-breaking cold air across all of the Nation east of the Continental Divide. Temperatures in the central States sank 9 to 10° below normal. Little or no precipitation occurred until the front met the warm, moist air in the central Plains. This produced varying amounts of rain, but most fell from Kansas to the Great Lakes region and in the south central States. The northern Plains, though badly in need of moisture, recorded only a trace of rain. In the Far West light rainfall occurred as showers in southern California, but the State remained generally dry. In contrast, the southern Plateau and Rockies had moderate showers. Cool, wet weather in the South slowed germination of cotton.

During the 10th-16th cool weather persisted in the southern Plains, lower Mississippi Valley, and Midsouth. Temperatures averaged as much as 6° below normal in Oklahoma and Texas. The rest of the Nation climbed to above normal temperatures. Some areas in California were as much as 12° above normal. Heaviest precipitation during the week occurred as showers and thundershowers just west of the Mississippi River and in the Southeast. Interior portions of the South took the worst beating from a midweek barrage of severe weather.

Just after mid-May a massive high pressure system dominated most of the East. The return circulation on its back side brought warm, moist air northward into the Plains, triggering thunderstorms and severe weather. Around the perimeter of the high pressure, New England and the Southeast also received moderate precipitation. As the cold air mass characterizing the high pressure system moved southward and eastward during the week, temperatures skidded into the 20's and 30's in the northern and central Plains. The Plains warmed later in the week but the South and East remained below normal. Meantime, the Plateau and the Rockies averaged above normal temperatures.

Cool weather continued to dominate the East at the end of the month, as more polar air moved into the Nation from central Canada. The West Coast and the Pacific Northwest also averaged below normal weekly temperatures. Some rain fell in most areas east of the Rockies. Even moisture-starved Minnesota recorded totals of up to an inch in the southern portion. In other areas east of the mountains, thunderstorms and severe weather were common most of the week but tapered off to mostly mild weather as the month ended.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

STATE	Temperature — Monthly extremes						Precipitation — Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In
Alabama	Brewton 3 SSE	91	31	Valley Head	29	4	Brookwood	15.79	Russellville 2	3 93
Alaska	2 Stations	74	1	Happy Valley Camp	- 2	20	Mac Leod Harbor	31.45	Anderson Lake	00
Arizona	Dateland Whitewng Ranch	112	14	Sunrise Mountain	19	9	Happy Jack Ranger Station	2.91	4 Stations	00
Arkansas	2 Stations	90	24	6 Stations	30	1	Natural Dam	8.93	Damas	2 38
California	Death Valley	112	14	White Mountain 2	11	6	Idyllwild Fire Department	1.82	169 Stations	00
Colorado	3 Stations	93	28	Twin Lakes Reservoir	1	1	Byers 5 ENE	3.72	Elbert	18
Connecticut	Hartford WSO AP	86	28	Falls Village	24	5	Saugatuck Reservoir	7 11	Bridgeport WSO AP	3 15
Delaware	Milton 2 WSW	85	14	2 Stations	33	12	Wilmgton Porter Reservoir	5.62	Dover	1 91
Florida	2 Stations	96	30	Fountain 3 SSE	40	19	Brooksville Chin Hill	16.27	Key West WSO AP	2 65
Georgia	Metter	92	14	Cornelia	29	1	Clayton 1 SSW	21.71	Dublin 3 S	3 64
Hawaii	Keawakapu Beach 260.2	89	29	Mauna Loa Slope Obs.	30	22	Hilo Country Club 86.6	18.63	12 Stations	00
Idaho	2 Stations	95	15	Henry	16	1	Elk City	3.81	Grand View 2 W	11
Illinois	3 Stations	89	22	Mount Carroll	26	1	Minonk	6 46	Freeport Waste Water Plt.	1 62
Indiana	Madison Sewage Plant	90	13	3 Stations	25	8	Evansville WSO AP	7 48	Lafayette 5 S	1 40
Iowa	Sioux Center	92	20	2 Stations	23	1	Carroll 2 NNW	9 13	Dubuque Lock & Dam 11	98
Kansas	Saint Francis	94	19	Holton 4 NE	22	5	Leavenworth	8 92	Healy	50
Kentucky	3 Stations	89	23	Gray Hawk	27	5	La Grange	7 97	Lloyd Greenup Dam	1 51
Louisiana	De Quincy 1 N	95	26	2 Stations	39	2	Slagle	11.54	Hackberry 8 SSW	2 36
Maine	2 Stations	86	31	Patten 4 WSW	21	1	Fort Fairfield 5 NE	6.84	Bangor FAA AP	3 46
Maryland	National Arboretum, Dc	89	18	Oakland 1 SE	25	9	Beltsville	6.51	Cumberland 2	2 27
Massachusetts	Chester 2	88	28	Chester 2	19	5	Adams	6.81	Chatham WSMO	1 65
Michigan	2 Stations	85	27	2 Stations	16	6	Millington 3 SW	7.55	Mott Island Isle Royal	36
Minnesota	Ivanhoe 4 E	91	10	Thorhult 1 S	14	7	La Crescent Dam 7	3.78	Two Harbors	08
Mississippi	2 Stations	90	7	Tupelo 2 WNW	30	1	D'Lo	10.26	Lambert 5 E	2 40
Missouri	5 Stations	88	31	Berryman 6 NW	20	1	Advance 1 S	6.69	Elsberry 1 S	1 80
Montana	3 Stations	90	29	2 Stations	12	2	Gallatin Gateway 9 SSW	3.44	Jardine	25
Nebraska	2 Stations	93	20	Nenzel 20 S	16	6	Saint Paul	7.18	Ainsworth	1 02
Nevada	Valley of Fire State Park	107	16	3 Stations	20	2	Duckwater	1.74	5 Stations	00
New Hampshire	2 Stations	86	6	Mount Washington	13	5	Mount Washington	11.08	Nashua 2 NNW	2 77
New Jersey	Morris Plains 1 W	91	16	Phillipsburg	27	5	Burlington	5 31	Shiloh	1 95
New Mexico	Carlsbad FAA AP	99	28	Eagle Nest	7	1	Rinestine Ranch	5 53	Deming FAA AP	02
New York	New York Laurel Hill	88	15	Old Forge	21	13	Hooker 4 N	8.70	Bridgehampton	2 17
North Carolina	High Point	92	31	Grandfather Mountain	24	1	Highlands 2 S	24.08	Murfreesboro	2 55
North Dakota	Grand Forks FAA AP	91	14	2 Stations	17	3	Watford City	3.04	Ramsey 2 N	02
Ohio	Kenton	89	20	3 Stations	25	19	Tiffin	4 25	Lancaster 2 NW	95
Oklahoma	Chattanooga 3 NE	97	29	2 Stations	31	3	Carnasaw Tower	9 03	Stillwater 2 W	1 80
Oregon	Tillabe	97	12	Brothers	15	20	Brightwood	5 70	Rome 2 NW	1
Pennsylvania	Palmerton	91	15	Clermont 4 NW	18	13	English Center	6 99	Farrell-Sharon	93
Puerto Rico	San Sebastian 2 WNW	95	2	2 Stations	53	18	San Sebastian 2 WNW	15 97	Santa Isabel 2 NE	21
Rhode Island	2 Stations	81	28	Kingston	29	9	North Foster 1 E	3 16	Block Island WSO AP	1 93
South Carolina	2 Stations	92	31	Walhalla	31	4	Longcreek 1 N	17 65	Kershaw	3 69
South Dakota	3 Stations	93	20	Deerfield 4 NW	10	4	Ardmore 2 N	4 14	Yellbank	10
Tennessee	2 Stations	88	31	2 Stations	25	8	Copperhill	9 47	Bristol WSO AP	3 31
Texas	Presidio	105	15	3 Stations	50	8	Lockhart	10 09	Toyah	10
Utah	2 Stations	95	27	Bryce Canyon NP 1 S	17	1	Bryce Canyon NP 1 S	2 59	2 Stations	00
Vermont	Rutland	88	29	2 Stations	21	6	Dorset 1 S	8 67	South Newbury	5 63
Virginia	3 Stations	91	31	2 Stations	24	9	Peaks of Otter	8 96	Painter 2 W	1 95
Virgin Islands	2 Stations	90	30	Catherineburg	67	8	Bordeaux Mountain	2 32	Han. Bluff I H Station	26
Washington	Mc Nary Dam	91	17	Rainier Paradise RS	18	28	Point Grenville	6 65	Quincy 1 S	04
West Virginia	8 Stations	88	15	Seneca State Forest	19	9	Bluefield FAA AP	4 22	Oak Hill	1 53
Wisconsin	2 Stations	86	20	Neillsville 3 SW	15	1	Breakwater	5 64	Gordon	11
Wyoming	2 Stations	92	28	Yellowstone Park	9	26	Lusk	6 08	Emblem	02

CLIMATOLOGICAL DATA

METRIC UNITS

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State and Station	Elevation (ground)	Pressure		Temperature										Average relative humidity	Precipitation						Wind					No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max 32°C or above	No. of days: Min 0°C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: 25 mm or more	No. of days: With thunderstorms	Snow, ice pellets: Total	Snow, ice pellets: Maximum depth on ground	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Fastest mile (1.6 kilometers): Direction	Fastest mile (1.6 kilometers): Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ALABAMA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
BIRMINGHAM	189	992.4	1015.3	24.1	11.7	17.9	-3.5	28.9	30	2.8	4	0	0	13.9	79	229	137	89	16	5	0	0	2.2	24	14.3	5	15	8	5	18	6.8	57
HUNTSVILLE	193	992.2	1015.2	23.4	11.2	17.3	-3.6	28.3	30+	3.9	4	0	0	11.1	70	168	70	92	13	5	0	0	2.4	16	13.3	20	13	6	6	17	6.7	
MOBILE	64	1006.8	1014.6	27.8	17.4	22.6	-1.2	31.7	31	11.1	19	0	0	15.6	70	282	167	99	11	6	0	0	2.4	8	11.2	19	27	8	6	14	6.2	
MONTGOMERY	59	1007.8	1015.7	24.7	13.3	19.0	-3.4	28.9	31	6.7	5+	0	0	12.8	71	172	84	76	10	5	0	0	2.4	28	15.2	16	11	7	7	17	6.5	57
ALASKA																																
ANCHORAGE	35	1001.7	1006.6	11.0	3.3	7.2	-0.7	17.2	31	0.0	9	0	1	0.6	64	4	-11	1	5	0	T	0	2.4	19	9.8	16	11+	2	7	22	8.7	55
ANNETTE	34	1009.5	1013.4	12.3	8.8	9.1	-0.6	16.1	31	1.7	19	0	0	3.3	72	248	91	52	26	0	T	0	2.3	15	16.5	16	9	0	2	29	9.4	
BARROW	9	1015.7	1015.8	-6.0	-10.8	-8.2	-1.1	1.7	30	-17.2	10	0	31	-10.0	86	1	-14	T	3	0	18	102	3.0	6	10.7	6	3	2	4	25	8.6	
BETHEL	12	1011.9	1013.9	-4.2	-9.3	-6.7	-0.7	2.8	31+	-15.6	8	0	31	-7.8	90	30	22	14	12	0	279	254	3.4	7	17.9	9	3	2	5	24	8.6	
BETTLES	34	1009.0	1007.7	7.4	-1.7	3.1	-1.4	14.4	21	-5.0	13+	0	23	-1.1	78	13	8	8	8	1	23	127	1.4	09	11.2	33	24	1	7	23	8.4	
BIG DELTA	384	993.1	1007.1	11.4	1.7	6.6	1.2	19.4	23	-2.2	15	0	11	0.6	69	3	15	12	11		T	152	1.6	1								
CAMPBELL TC				13.1	2.8	7.8	-0.2	21.1	1	-2.2	9	1	7			36	18	25	7		T	T										
COLD BAY	24	1004.1	1007.8	5.1	0.0	2.6	-1.6	10.0	1	-3.3	7	0	15	0.0	87	24	-32	8	15	6	2	T	1.3	28	17.9	15	21+	0	6	24	9.5	
FAIRBANKS	133	989.5	1007.4	14.3	3.3	8.8	0.3	21.7	1	-0.6	7	1	3	0.6	59	24	7	7	16	0	T	T	0.7	27	13.0	23	12	3	11	17	7.1	
FORT YUKON	479			11.4	0.0	5.7	-0.8	18.3	31	-3.3	1	0	14			13	-3	9	5		T	T										
GLENNALLEN	12	1003.1	1010.6	9.4	1.3	5.4		14.4	25	-2.8	10	0	11	1.7	77	14	-9	7	8	0	0		1.1	24	11.2	5	9	0	8	17	7.0	
HOMER	4	1010.5	1011.2	10.9	4.1	7.5	-0.7	20.0	30	-0.6	30	0	1	3.3	78	87	3	16	19	0	0		3.4	12	13.4	12	5	0	3	28	9.5	32
KING SALMON	15	1008.7	1009.7	8.7	-0.6	4.2	-1.7	13.3	1	-3.3	30	0	17	0.0	76	37	9	12	11	0	81		1.4	14	12.2	16	15	4	6	24	8.6	
KODIAK	4	1001.7	1009.6	9.7	3.4	6.6	0.4	15.0	30	0.0	14	0	1	2.2	76	104	-2	24	19	0	1	T	1.4	1	13.9	3	9	3	5	23	8.1	
KOTZEBUE	3	1008.5	1009.6	2.1	-4.3	-1.1	-0.4	9.4	3	-10.6	14	0	27	-3.3	85	3	-7	3	3	0	46	381	2.6	34	17.6	29	24	6	3	18	6.6	
MCGRATH	105	993.6	1009.1	11.4	1.3	6.3	-0.4	17.2	21	-2.2	8	0	9	-1.1	62	41	21	26	9	6	T	254	2.4	3	10.7	2	9	2	10	19	7.0	
NOME	4	1007.1	1009.6	4.7	-3.4	0.6	-0.9	12.8	23	-7.2	14+	0	28	-2.8	77	6	-10	3	4	0	38	178	0.9	27	12.1	27	30+	11	6	14	8.5	59
ST. PAUL ISLAND	7			0.9	-2.3	-0.7	-2.3	3.3	31	-11.7	14	0	30			38	5	26	11	0	25	254			13.9	17	31	6	1	30	9.7	
SITKA	731			6.4	-1.6	2.5	-0.5	12.2	2+	-8.3	7	0	27			76	56	48	17	0	221	508			7.6	24	18	5	6	20	7.6	
TANANA	105			12.9	0.4	6.6	-0.3	21.7	31	-2.8	17+	1	14			28	-12	7	10	0	0	254			10.3	3	9					
UNALAKLEET	5			6.4	-1.2	2.6		13.3	2+	-4.4	28	0	22			9		5	4		18	178			14.3	22	23	2	1	19	7.0	
VALDEZ	7			9.9	3.2	6.4	-0.1	18.3	31	0.6	17	0	0			64	-17		21		T				9.0	27	25					
WAINWRIGHT	9	1008.9	1009.8	7.8	2.3	5.1	-1.2	14.4	30	0.0	26+	0	4	2.8	86	461	257	72	23	0	18	127	1.7	9	16.2	12	10	0	3	26	9.0	
WALDRON																																
WILLOW CREEK	2135	787.9	1012.3	10.6	2.5	11.6	1.5	27.2	14	-1.1	9+	0	6	-2.2	45	43	28	21	8	7	81	T	1.1	22	17.3	34	28	17	5	9	4.3	87
WRANGELL	332	971.2	1012.3	14.7	10.6	27.1	2.4	41.1	14	14.4	8+	23	0	2.2	25	27	23	24	4	5	0		1.5	14	19.2	5	4	21	5	6	3.6	87
YAKUTAT	284	983.1	1009.2	11.6	1.6	6.6	0.5	34.7	27	8.9	8	18	0	0.0	25	4	2	2	4	5	0		1.1	14	17.1	5	4	21	5	7	2.6	9
YES	1440	959.7	1012.6	10.3	3.6	17.4	0.3	32.2	27+	0.0	1	3	1	0.0	39	29	22	14	7	6	0	0	2.1	22	14.2	17	3	15	5	6	4.1	
YUMA	59	1010.1	1009.3	34.7	10.7	26.7	1.8	41.1	14+	12.8	8	25	0	5.6	30	0	0	2	1	0	0	0	1.8	18	11.6	32	16+	25	5	2	2.6	93
ARIZONA																																
FLAGSTAFF	1335	858.3	1012.4	24.4	11.1	17.7	-3.4	30.0	29	3.9	4	0	0	11.1	69	125	-14	55	12	8	1	1	1.6	3	13.4	1	36+	11	5	14	4.1	37
GRAND CANYON	796	1009.1	1012.5	24.4	11.8	18.1	-2.9	31.7	3	5.0	9	0	6			143	6	36	12	6	1	1	2.0	26	16.2	26	16	8	10	13	4.1	89
GRAND CANYON																																
HUACHUCA	1406	864.8	1011.3	21.2	14.8	24.1	3.1	41.7	13	13.9	28+	11	0	7.8	38	14	8	14	1	0	0	0	2.5	23	14.5	32	8	27	6	2	1.6	
KINGMAN	1057	911.3		28.4	7.0	18.2	1.4	33.3	14+	2.2	6	5	0			15	8	12	4		0				17.9	24	28	11	11	6	6.6	
LUKE AIR FORCE RANGE	1441	867.0	1011.6	18.9	8.9	13.6	2.9	27.8	21	3.3	28	0	0	-1.1	39	11	69	8	3		0	0	0.8	28	8.9	23	18					
PHOENIX	338			33.4	17.6	25.6	4.8	42.8	13	4.4	2		0			14	6	6	5		0				15.1	1	14+	11	8	12	5.3	55
PRESCOTT	1531	1011.7	1012.7	29.9	11.8	20.9	1.3	38.4	13	8.3	24+	7	0	4.7	44	1	0	1	1	0	0	0	2.2	34	13.6	34	27	16	8	6	3.1	35
SAFFORD	910	1011.5	1012.4	33.1	15.1	24.1	1.2	39.4	1	12.8	31	0	0	13.9	78	1	0	1	1	0	0	0	1.5	21	9.8	26	7	11	12	8	4.7	
SAN SIMON	1219	1011.3	1012.4	31.3	14.6	23.4	1.8	40.6	13	13.3	23+	0	0	12.8	70	1	0	1	1	0	0	0	2.5	25	11.4	1	36+	11	5	14	4.3	
WINSLOW	1487			32.3	13.1	22.7	-0.2	37.1	13	11.7	7+	0	0			1	0	1	1	0	0	0	1.8	23	7.6	24	7	11	12	7	4.2	
YUMA	68	1010.1	1009.3	34.8	14.8	24.8	1.5	38.3	13	10.6	29+	6	0	3.6	46	1	0	1	1	0	0	0	1.8	33	13.8	1	36+	11	4	15	4.2	
ARKANSAS																																
BATESVILLE	76	1000.1	1015.1	19.6	10.8	15.2	1.3	33.3	13	0.9	2+	1	0	10.0	76	7	4	4	5	3	0	0	1.8	27	10.3	27	27+	11	4	15	4.2	
BLYTHEVILLE	71	1001.4	1015.4	21.2	12.1	22.1	2.4	34.4	13	6.4	17	12	0	2.8	32	1	0	1	1	0	0	0	2.6	32	11.5	1	36+	11	5	14	3.6	44
CAMDEN	52	1007.8	1015.8	23.4	11.0	21.2	3.2	40.0	13	8.3	28	8	0	6.7	45	1	0	1	1	0	0	0	2.1	28	11.2	26	28	11	4	15	3.5	55
CROSSETT	137			20.5	10.3	15.6	0.4	32.4	13	4.4	7+	0	0	1.7	44	1	0	1	1	0	0	0	1.8	33	13.8	28	28					
EL DORADO	76	1013.0	1015.0	21.1	12.3	16.4	1.1	29.7	1	10.3	7+	0	0	11.7	60	3	0	2	1	0	0	0	1.8	26	9.6	10	7	7	11	12	4.6	37
FAYETTEVILLE	396	1004.8	1015.8	19.8	9.6	14.6		31.0	13	6.7	8	2	0	6.7	67	1	0	1	1	0	0	0	1.4	32	11.6	24	27	14	11	7	4.3	
FORT SMITH	137			21.4	10.1	15.8		32.6	13	5.7	12+	1	0			1	0	1	1	0	0	0	1.8	33	13.8	28	27	11	11	7	4.3	
HARRISON	396			18.8	8.2	14.1		30.6	13	4.4	7	0	0			1	0	1	1	0	0	0	1.8	33	13.8	28	27	11	11	7	4.4	
HOT SPRINGS	152	1000.1	1015.1	22.7	11.4	17.0	0.5	34.7	13	6.1	4	3	0	8.7	51	1	0	1	1	0	0	0	2.3	32	13.4	16	27	11	11	7	5.1	
JONESBORO	82			21.2	9.7	15.4		37.8	13	5.2	4	0	11			2	0	1	1	0	0	0	1.8	33	13.8	28	27	11	11	7	4.5	

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State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days Max 32.2°C or above	Temperature: No of days Min. 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days 25 mm. or more	Precipitation: No of days With thunderstorms	Precipitation: Snow, ice pellets Total	Precipitation: Snow, ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No. of days (sunrise to sunset) Clear, 0-3	No. of days (sunrise to sunset) Partly cloudy, 4-7	No. of days (sunrise to sunset) Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
COLORADO																																
COLORADO SPRINGS	1873	811.0	1014.1	19.4	5.8	12.6	-0.4	27.8	14	-0.6	1	0	1	0.6	49	53	-1	27	7	10	0	0	1.7	2	16.5	35	15+	6	9	16	6.4	
DENVER	1610	836.4	1013.1	21.3	6.1	13.7	-0.2	29.4	18	1.7	17+	0	0	2.2	51	34	-33	23	12	5	0	0	0.4	14	14.8	S	3	5	9	17	7.0	65
GRAND JUNCTION	1479	851.0	1011.8	24.5	8.6	16.6	-0.2	31.7	28	2.2	1	0	0	1.1	43	39	22	15	10	8	0	0	0.5	9	17.0	NW	5	10	5	16	5.9	73
PUEBLO	1429	854.7	1012.6	23.6	6.9	15.3	-0.9	30.6	28	1.1	3+	0	0	3.9	52	17	-25	8	9	7	0	0	1.3	7	17.9	N	13	6	10	15	4.1	87
CONNECTICUT																																
BRIDGEPORT	7	1013.9	1014.4	18.8	8.8	13.8	-0.8	26.7	28	2.8	9	0	0	6.7	65	80	-11	28	10	2	0	0	1.9	24	16.1	25	20+	3	11	17	8.9	
HARTFORD	52	1007.1	1013.5	21.8	7.6	14.7	0.1	30.0	29	0.6	4	0	0	7.8	66	112	24	40	14	3	0	0	1.3	22	13.0	NW	12+	2	14	15	7.1	52
DELAWARE																																
WILMINGTON	23	1012.2	1015.2	20.9	10.0	15.5	-1.4	26.7	21	2.8	4	0	0	8.9	67	128	43	58	13	5	0	0	1.7	25	12.5	25	7	6	9	16	6.7	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1009.1	1014.9	21.4	7.6	14.5	-2.5	27.2	21	-1.7	5	0	3	8.9	71	106	13	24	9	3	0	0	1.3	22	13.0	29	19	5	8	18	6.8	
WASHINGTON NATIONAL	3	1012.9	1015.1	23.9	12.8	18.3	-0.7	30.6	21	6.1	19+	0	0	9.4	58	91	-3	36	11	2	0	0	1.6	21	13.9	NW	19+	6	8	17	6.9	70
FLORIDA																																
APALACHICOLA U	6	1014.6	1015.1	26.6	17.2	21.9	-1.9	28.3	31+	11.1	5	0	0	18.3	79	119	48	34	9	6	0	0	1.1	20	11.6	S	28	10	5	16	6.3	62
DAYTONA BEACH	9	1014.2	1015.8	27.9	17.9	22.9	-0.9	31.7	17	11.7	5	0	0	17.8	76	313	246	61	18	15	0	0	1.0	17	10.7	14	14	5	9	17	7.1	
FORT MYERS	5	1015.6	1016.0	30.8	19.4	25.1	-0.3	33.3	14	16.7	4	5	0	18.9	74	133	31	72	10	6	0	0	1.4	19	11.2	31	28	2	18	11	6.5	
JACKSONVILLE	8	1014.6	1015.7	27.1	16.6	21.9	-1.6	32.2	16	7.8	5	1	0	17.8	80	255	173	103	14	10	0	0	1.0	17	12.5	SW	8	6	12	13	6.6	64
KEY WEST	1	1015.2	1015.8	29.3	24.5	26.9	-0.2	30.6	31+	22.2	4	0	0	21.1	72	67	4	35	10	8	0	0	3.2	14	13.4	SW	23	4	12	15	6.8	90
LAKELAND U	65			29.9	19.5	24.7	-0.3	33.3	31+	16.1	19+	5	0			204	114	99	17		0	0						3	13	15	6.9	75
MIAMI	2	1016.3	1016.5	28.6	23.0	25.8	0.3	30.6	29+	21.1	28	0	0	21.1	76	265	110	88	14	11	0	0	2.2	13	13.4	19	23	2	12	17	7.5	
ORLANDO/MC CDY AFB	29	1012.2	1016.1	30.8	18.9	24.9	0.2	33.9	7	13.9	5+	7	0	13.9	75	263	188	68	20	18	0	0	1.2	17	13.9	27	28	3	11	17	7.2	
PENSACOLA	34	1010.5	1014.8	26.6	16.9	21.8	-2.2	30.0	24+	10.6	19	0	0	15.6	71	211	103	81	9	6	0	0	0.5	20	10.7	35	23	8	10	13	6.0	
TALLAHASSEE	17	1012.9	1015.2	28.6	16.3	22.4	-1.3	31.1	31+	7.8	19+	0	0	17.2	76	296	194	81	14	13	0	0	0.6	20	12.5	16	14	5	13	13	6.6	
TAMPA	6	1015.2	1015.6	29.2	19.8	24.5	-0.6	32.2	13	12.2	4	1	0	18.9	74	207	145	104	12	8	0	0	1.0	20	11.6	28	28	4	11	16	7.0	58
WEST PALM BEACH	5	1015.9	1016.5	29.2	21.2	25.2	-0.1	32.2	29+	18.9	31+	2	0	20.0	75	387	255	139	17	14	0	0	2.2	14	15.5	27	23	4	11	16	7.2	
GEORGIA																																
ATHENS	244	986.1	1014.7	24.6	13.4	19.0	-2.1	30.0	13	4.4	4	0	0	12.8	71	216	114	91	11	8	0	0	0.8	21	8.9	29	18	8	6	17	6.6	
ATLANTA	308	978.3	1014.8	24.4	12.7	18.6	-2.1	28.4	31	4.4	4	0	0	12.2	72	178	83	86	11	4	0	0	0.9	25	11.6	SW	28	5	9	17	6.7	54
AUGUSTA	41	1009.8	1015.1	26.7	13.2	19.9	-2.1	31.1	13	5.0	19	0	0	14.4	75	155	70	42	14	5	0	0	0.8	18	12.5	32	11	9	7	15	6.5	
COLUMBUS	117	1000.7		25.8	14.4	20.1	-2.3	29.4	31+	7.2	5	0	0	14.4	74	95	-8	30	9	5	0	0	0.1	36	10.3	18	13	7	6	18	6.7	
MACON	108	1002.4	1015.2	26.9	14.1	20.6	-2.5	31.7	13	6.7	5+	0	0	15.0	74	210	119	136	13	8	0	0	0.5	21	12.1	SW	13	6	11	14	6.6	64
ROME	194			25.3	11.6	18.4	-1.9	31.1	31	2.8	4	0	0			135	35	53	15		0	0										
SAVANNAH	14	1014.2	1016.0	26.3	15.6	20.9	-2.0	30.6	31	8.3	5	0	0	15.6	76	161	54	144	12	10	0	0	0.8	19	12.5	W	18	6	8	17	7.0	57
HAWAII																																
HILO	8	1018.0	1019.3	26.3	19.2	22.8	-0.3	27.8	14+	17.8	31+	0	0	18.9	83	153	-103	26	29	0	0	0	0.3	23	6.7	E	22+	1	11	19	7.8	42
HONOLULU	2	1018.3	1019.6	29.2	21.3	25.3	0.3	30.0	30+	18.9	1	0	0	16.1	59	7	-18	2	11	0	0	0	5.5	6	11.6	E	16	3	24	4	5.9	64
KAHULUI	15	1015.6	1017.9	28.8	18.9	23.9	-0.2	30.0	31+	15.6	31+	0	0			T	-15	T	1	0	0	0	6.4	6	15.2	NE	28	14	13	4	4.5	70
LIHUE	31	1014.6	1019.9	27.7	23.2	25.4	1.3	28.9	27	21.1	24	0	0	20.0	74	22	-40	7	17	0	0	0	5.8	6	11.6	NE	21	4	16	11	6.2	63
IDAHO																																
BOISE	865	914.3	1013.7	23.7	6.6	15.2	1.1	32.8	13	0.0	29	2	1	1.7	44	12	-22	5	5	2	0	0	0.8	30	15.2	NW	19	11	12	8	4.8	86
LEWISTON	431			22.9	7.8	15.4	0.9	31.7	16+	5.0	26+	0	0			36	-4	15	9		0	0			24.1Y		10	5	12	14	6.6	
POCATELLO	1358	861.8	1013.1	22.0	6.5	14.3	1.8	27.8	27+	0.0	1	0	1	2.2	48	13	-20	4	8	4	0	0	2.3	24	15.2	S	14+	10	11	10	5.5	79
ILLINOIS																																
CAIRO U	96			23.2	12.8	18.0	-2.7	31.7	21	4.4	3	0	0			119	-12	36	12		0	0			13.4	SW	2					63
CHICAGO O HARE	201	990.2	1014.6	19.1	7.4	13.3	-1.4	27.8	20	0.6	7	0	0	6.1	64	102	16	53	9	0	T	T	1.0	35	14.3	23	5	11	7	13	5.5	
CHICAGO MIDWAY	185	992.2	1014.9	19.0	8.2	13.6	-1.9	30.0	20	1.1	4	0	0	6.1	63	102	15	38	9	4	T	T	1.1	35	16.1	SW	5	11	7	13	5.4	68
MOLINE	177	993.2	1014.7	20.6	7.7	14.2	-2.0	29.4	20	-0.6	4	0	3	6.1	62	105	5	44	9	2	T	T	0.3	14	17.0	SW	5+	9	10	12	5.5	65
PEORIA	199	990.9	1014.9	20.8	8.2	14.6	-1.8	27.8	20	-0.6	7+	0	2	7.2	65	130	31	44	10	3	0	0	0.3	8	13.9	NW	2	9	9	13	5.9	57
ROCKFORD	221	987.8	1015.0	19.6	6.3	12.9	-1.9	26.1	20	-2.2	7	0	5	4.4	60	66	-38	22	10	2	T	T	0.5	3	14.3	23	5	11	6	14	5.8	
SPRINGFIELD	179	992.6	1014.6	22.1	8.7	15.4	-2.1	29.4	21	-1.7	3	0	1	7.2	62	50	-40	14	9	3	0	0	0.2	19	17.4	SW	5	9	8	14	5.9	65
INDIANA																																
EVANSVILLE	116	1001.0	1014.9	22.6	10.3	16.4	-2.3	28.9	21	0.0	4	0	1	8.9	65	190	79	54	11	4	0	0	0.0	19	18.8	SW	15	12	2	17	5.9	67
FORT WAYNE	241	983.7	1013.8	20.7	8.1	14.4	-0.9	28.9	20	0.0	8+	0	2	7.2	65	55	-42	20	12	1	0	0	1.3	26	17.4	SW	2	8	10	13	6.0	69

CLIMATOLOGICAL DATA

METRIC UNITS

MAY 1976

State and Station	Elevation (ground)	Pressure		Temperature										Average relative humidity	Precipitation							Wind				No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max 32.2 °C or above	No. of days: Min 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: 25 mm or more	No. of days: With thunderstorms	Snow, ice pellets: Total	Snow, ice pellets: Maximum depth on ground	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Fastest mile (1.6 kilometers): Direction	Fastest mile (1.6 kilometers): Date	Clear, 0.3	Partly cloudy 4.7	Cloudy 8.10		
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
INDIANA																																
INDIANAPOLIS	241	985.8	1014.9	21.5	8.2	14.9	-1.9	28.3	21	-1.1	4	0	2	7.8	66	79	-25	26	10	3	0	0	7.7	24	15.2	SW	2	10	5	16	6.6	61
SOUTH BEND	236	984.1	1014.2	19.7	9.1	13.9	-0.8	28.9	20	-1.1	8	0	1	7.8	70	169	89	76	12	3	T	T	1.3	31	14.3	24	5	12	6	13	5.4	
IOWA																																
BURLINGTON	211			20.5	8.9	14.7	-1.8	27.8	20	-1.7	3	0	1		57	84	-7	35	9	3	0	0	0.9	29	12.5	21	4	11	10	11	5.6	
DES MOINES	286	980.4	1014.4	22.0	9.9	15.9	-0.1	31.1	20	0.6	3	0	0	5.6	54	79	-35	32	8	4	T	0	0.1	33	17.0	SW	5	8	9	14	6.9	65
DUBUQUE	322			19.1	6.9	13.0	-1.4	25.0	20+	-2.2	4	0	3			44	-75	13	7		0	0										
SIOUX CITY	336	974.9	1014.6	22.2	7.3	14.8	-1.3	32.2	19	-3.9	3	1	3	5.0	56	70	-11	40	8	2	T	T	0.4	3	15.6	SW	4	12	8	11	5.3	75
WATERLOO	268	983.1	1015.0	20.4	6.9	13.7	-1.2	28.3	10	-2.2	8	0	3	5.0	58	54	-56	21	8	2	T	0	0.3	1	11.6	S	10+	9	10	12	5.8	
KANSAS																																
CHANUTE	448	961.7	1014.2	22.1	9.1	15.6	-1.6	28.3	28+	-1.7	3	0	1	7.8	63	41	-67	19	9	4	0	0	0.9	14	17.4	S	4	12	4	15	5.4	85
KANSAS CITY	787	923.8	1014.	21.7	9.3	15.5	-2.3	29.4	29+	1.7	7	0	0	7.8	64	75	-6	24	11	7	0	0	0.9	11	18.3	NW	29	9	13	9	5.4	69
[illegible]	1114	887.2	1013.6	21.7	6.2	13.9	-1.0	31.1	19	-0.6	17	0	2	3.9	58	30	-35	20	5	2	0	0	0.4	18	16.5	SW	13+	8	11	12	5.6	
TOPEKA	267	983.1	1014.6	22.2	9.3	15.8	-2.3	29.4	20	-1.7	3	0	1	9.4	69	118	16	37	12	5	0	0	0.7	16	14.8	SW	4	6	8	15	6.0	62
WICHITA	409	966.3	1014.4	21.9	9.4	15.7	-3.3	28.9	29	-0.6	3	0	1	9.4	68	68	-23	35	13	4	0	0	0.9	7	14.8	S	30	11	7	13	5.8	72
KENTUCKY																																
[illegible]	268	980.1	1014.4	22.5	9.6	15.6	-1.8	30.3	13	-0.6	9+	0	2	7.8	63	44	-49	18	12	3	0	0	0.8	24	13.4	SW	2	7	11	13	6.2	
[illegible]	244	974.7	1015.1	21.9	9.8	15.9	-2.3	28.9	13	0.0	4	0	1	8.3	63	80	-28	19	14	3	0	0	0.4	18	12.5	SW	2	9	6	14	4.1	
[illegible]	145	997.1	1014.8	23.6	10.7	17.2	-1.1	30.6	13	0.0	4	0	1	10.0	66	129	23	53	13	5	0	0	0.5	22	15.2	S	30	9	7	15	6.7	56
LOUISIANA																																
[illegible]	28	1011.2	1014.4	27.6	14.5	21.1	-1.3	32.9	30	8.9	2	3	0	15.0	73	132	-10	55	16	9	1	0	0.1	8	12.5	SE	31	9	10	12	4.6	
[illegible]	21	1011.9	1014.7	27.6	15.8	21.7	-2.1	31.1	30+	10.6	19+	0	0	15.6	71	125	13	76	7	7	1	0	0.2	29	11.2	E	24+	8	14	9	5.8	
[illegible]	3	1013.2	1014.7	26.2	16.5	22.4	-1.6	31.7	24+	10.6	2	6	0	16.7	76	67	-67	26	5	7	1	0	0.4	28	15.6	SE	7	5	12	11	5.4	
[illegible]	1	1013.6	1014.9	27.4	17.3	22.4	-1.6	33.6	31+	11.1	3	8	0	17.8	75	142	35	34	9	7	1	0	0.4	15	15.6	SE	23	7	10	13	6.7	62
SHREVEPORT	77	1005.1	1014.1	26.3	13.6	19.9	-3.1	30.6	4	7.2	2	0	0	15.0	76	151	23	47	11	10	0	0	0.9	32	11.3	SE	12+	9	11	12	5.7	57
MAINE																																
[illegible]	193	987.5		18.6	4.8	11.7	-0.8	28.3	30	-1.7	5	0	2			130	55	27	15		13	4						4	6	21	7.7	
[illegible]	19	1016.5	1016.9	17.2	5.3	11.3	-0.2	28.9	6	0.6	21+	0	0	6.7	75	101	19	25	16	6	0	0	1.9	32	13.0	SW	11	4	10	17	4.2	59
MARYLAND																																
[illegible]	45	1009.9	1013.6	22.7	10.7	16.7	-0.9	29.9	21	3.3	4	0	0	10.0	67	124	35	53	14	4	0	0	1.5	26	16.1	N	19	7	9	15	6.6	59
MASSACHUSETTS																																
[illegible]	193			20.0	7.8	13.9	0.2	28.3	29	2.2	4	0	0			71	-21	22	11		6	0			12.5	E	3					57
[illegible]	5	1012.5	1013.6	21.8	10.6	15.7	0.9	28.3	15+	6.7	19+	0	0	7.8	63	80	-33	33	12	5	1	0	0.6	28	14.6	SW	7	7	7	15	6.6	76
[illegible]	390	974.6		18.5	7.1	12.8	-0.4	26.7	28	0.0	19	0	1	6.1	67	88	-13	32	11	3	1	0	0.6	26	14.6	SE	5	4	12	15	5.1	
MICHIGAN																																
[illegible]	210	988.8	1014.1	16.9	4.2	10.5	-1.2	24.1	10	-2.8	7	0	7	3.9	67	63	-7	19	11	3	1	1	0.3	32	13.4	NW	19	6	12	13	4.7	59
[illegible]	187			19.9	9.2	14.5	-1.1	26.7	20+	1.7	22	0	0	6.1	59					4			0.4	26	17.4	SE	2					
[illegible]	194	989.4	1013.8	21.3	11.8	16.6	-0.9	29.4	5	-1.1	8	0	2	7.8	72	83	[illegible]	[illegible]	[illegible]	4	[illegible]	[illegible]	0.6	28	17.4	SE	2	5	11	15	6.3	54
[illegible]	239	985.8	1013.8	18.1	8.8	12.5	-0.7	24.4	5	-0.6	8+	0	2	7.2	71	[illegible]	28	56	[illegible]	3	[illegible]	[illegible]	0.6	28	16.8	SE	2	5	10	15	6.2	
[illegible]	233	988.1	1013.8	18.8	5.6	12.2	-1.8	26.7	5	-2.8	8	0	6	6.1	68	102	37	72	13	2	[illegible]	[illegible]	0.6	28	15.2	SE	2	5	10	14	6.1	54
[illegible]	35	1018.2	1014.3	18.7	4.7	11.4	-2.1	28.4	29	-2.2	12	0	9	3.9	67	73	[illegible]	49	[illegible]	3	12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29	16+	4	4	15	6.2	
[illegible]	264	982.6	1013.9	18.6	5.0	12.2	-1.8	28.4	5	-2.2	8	0	5	7.8	75	64	[illegible]	35	12	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29	5	2	14	6.1	67
[illegible]	225			13.9	6.6	9.2	-1.8	24.4	29	-2.4	6	0	6			76	[illegible]	[illegible]	[illegible]	[illegible]	16	76	[illegible]	[illegible]	[illegible]	[illegible]	29	3	[illegible]	[illegible]	[illegible]	74
[illegible]	191	991.2	1014.6	18.6	5.7	11.1	-1.9	23.6	28	-2.8	8	0	5	5.6	70	93	61	41	[illegible]	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29	5	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	228	987.5	1014.6	15.6	1.8	8.7	-4.7	25.4	29	-5.0	6+	0	12	3.9	72	56	-21	17	11	0	4	4	[illegible]	[illegible]	[illegible]	[illegible]	29	2	12	14	6.5	67
MINNESOTA																																
[illegible]	431	954.1	1013.4	17.2	3.4	10.3	-0.7	26.1	15	-2.2	7	0	9	2.0	52	[illegible]	-53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.8	77
[illegible]	383	970.1	1013.4	19.4	2.3	10.7	-0.6	27.8	30+	-5.1	7	0	11	3.5	54	[illegible]	-54	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	251	983.4	1013.4	21.6	8.2	14.9	1.0	29.4	19	[illegible]	6	0	1	2.8	46	23	-63	9	3	2	3	15	[illegible]	3	14.8	SW	27	8	14	7	6.6	74
[illegible]	351	975.6	1013.8	20.5	5.0	12.2	-0.2	27.2	20	-2.2	4	0	5	4.4	57	53	-25	21	5	1	1	1	[illegible]	26	17.4	W	4	8	14	8	6.6	
ST CLOUD	313	974.3	1013.8	21.2	4.3	12.8	0.0	28.9	19	-3.9	6+	0	7			24	-46	9	4	1	1	1						10	10	8	6.7	
MISSISSIPPI																																
[illegible]	84	1001.1	1014.7	30.1	18.8	19.4	-0.7	31.1	30	5.6	4	0	0	15.0	78	203	97	60	4	5	0	0	0.7	[illegible]	8.1	N	14	8	17	13	6.1	53

CLIMATOLOGICAL DATA

METRIC UNITS

MAY 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
MISSISSIPPI	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							
MERIDIAN	88	1004.1	1015.0	25.1	11.6	18.3	-4.1	29.4	31+	3.9	4	0	0	13.3	78	160	63	67	9	6	0	0	0.4	23	8.0	24	14	7	10	14	6.4	
MISSOURI																																
COLUMBIA REGIONAL	270	982.7	1014.9	21.2	8.9	15.1	-2.9	27.2	22+	-1.7	3	0	1	8.3	66	93	-25	34	10	3	0	0	0.1	7	15.6	S	15	8	7	16	6.3	58
KANSAS CITY	309	977.7	1014.3	21.4	9.7	15.6	-2.8	27.8	20	-1.1	3	0	1	9.4	70	139	31	56	10	4	0	0	0.4	15	13.0	S	5	10	9	12	5.6	85
ST JOSEPH	247			22.1	8.9	15.6	-2.7	30.0	20	-1.1	3	0	1			46	-72	19	7		0	0										
ST LOUIS	163	994.6	1014.9	22.6	9.4	16.0	-2.8	30.0	21	+0.6	3	0	1	8.9	65	99	-1	53	12	5	0	0	0.2	32	14.3	S	5+	10	8	13	6.0	62
SPRINGFIELD	386	969.5	1014.7	22.0	8.7	15.4	-3.0	28.9	22	0.0	3	0	1	8.9	69	97	-28	26	12	2	0	0	0.8	17	12.5	NE	23	12	6	13	5.2	64
MONTANA																																
BILLINGS	1087	891.0	1014.1	20.8	6.1	13.4	0.9	27.8	28+	-1.1	2	0	2	2.8	52	47	-6	31	8	4	0	0	0.7	31	16.1	NW	28	6	12	13	6.1	77
GLASGOW	696	932.3	1013.7	23.2	5.9	14.6	2.2	31.1	28	+0.7	2	0	5	0.6	42	16	-17	6	7	3	0	0	0.8	12	17.0	34	12	11	10	10	5.1	
GREAT FALLS	1116	887.2	1013.5	21.6	6.1	13.8	2.0	30.6	27	0.0	15	0	1	2.2	49	22	-38	10	10	1	0	0	2.0	23	17.4	SW	20	7	11	13	6.3	67
HAVRE	788	921.4	1012.6	23.4	5.3	14.4	1.7	31.1	27	-3.3	3	0	4	1.1	43	18	-19	6	9	4	0	0	1.3	23	18.8	W	30	10	9	12	5.6	88
HELENA	1167	880.5	1014.9	20.1	4.4	12.3	1.1	28.3	27+	-0.6	16+	0	3	1.1	52	22	-23	8	13	5	0	0	1.9	28	19.2	W	11	10	9	12	6.0	68
KALISPELL	904	911.3	1015.7	19.8	3.9	11.9	1.4	28.9	27	-1.7	15	0	4	2.8	59	45	0	11	11	4	0	0	1.0	20	10.7	21	17	6	11	14	6.1	
MILES CITY	801	921.1	1013.5	22.7	7.4	15.1	1.6	31.1	31	-4.4	2	0	2	4.4	52	25	-27	9	4	0			0.5	12								
MISSOULA	972	904.5	1015.7	21.5	4.0	12.8	1.6	30.6	27	-0.6	26+	0	2	3.9	58	20	-23	7	12	6	0	0	1.4	21	21.0	W	10	10	12	9	5.6	67
NEBRASKA																																
GRAND ISLAND	561	948.5	1014.4	22.2	8.2	15.2	-0.8	31.7	19	-2.2	3	0	2	6.1	58	82	-14	51	6	3	0	0	0.3	15	13.4	35	2	14	7	10	5.1	
LINCOLN	359	972.2	1014.5	22.5	7.4	15.0	-1.7	30.0	19	-3.9	3	0	4	7.8	64	77	-12	29	8	3	0	0	0.3	9	15.2	SW	4	12	5	14	5.5	68
NORFOLK	471			22.7	8.1	15.4	-0.2	33.3	19	-4.4	3	2	3			90	-4	51	7		0	0						12	7	12	5.2	
NORTH PLATTE	846	917.0	1014.9	19.6	3.9	11.7	-2.9	31.1	19	-6.7	3	0	8	4.4	64	73	-10	28	12	3	0	0	0.5	7	20.1	NW	12	9	11	11	5.8	70
OMAHA	298	979.3	1014.6	23.3	7.9	15.7	-1.6	31.7	20	-2.8	3	0	2	7.8	62	90	-14	43	7	4	0	0	0.5	7	15.6	NW	2	10	8	13	5.7	68
SCOTTSBLUFF	1206	879.1	1013.7	22.6	6.6	14.6	0.9	32.8	18	0.6	6+	2	0	3.3	53	58	-14	41	7	5	0	0	1.1	5	21.9	28	11	8	10	13	6.1	
VALENTINE	789			21.2	8.0	13.6	-0.2	30.0	11	-6.1	6	0	5			40	-31	21	10		0	0			21.5	NW	12	14	9	8	4.8	78
NEVADA																																
ELKO	1539	843.6	1012.7	23.3	2.9	13.1	2.1	29.4	13	-2.6	1	0	6	-1.7	40	13	-13	8	5	3	0	T	0.5	27	12.5	16	10	9	11	11	5.4	
ELY	1906	808.0	1011.3	21.7	2.2	12.0	2.0	27.8	14	-5.0	1	0	6	-1.1	44	11	-12	9	4	5	0	0	1.8	21	14.8	NE	23	8	13	10	5.8	69
LAS VEGAS	659	934.0	1008.8	33.2	17.7	25.4	2.5	40.0	14	11.1	8	22	0	+3.3	18	9	6	9	1	2	0	0	2.4	21	15.6	E	7	18	7	6	3.4	95
RENO	1342	864.9	1012.8	24.8	3.5	14.2	1.6	32.8	13	-0.6	18+	1	4	-1.7	36	3	-14	3	2	2	T	T	1.6	27	17.0	W	30	13	8	10	4.7	95
WINNEMUCCA	1311	867.3	1012.4	26.9	4.7	15.8	3.7	34.4	13	-1.1	16+	3	3	+3.9	27	9	-14	9	3	0	0	0	1.3	32	12.5	W	27	9	14	8	5.2	85
NEW HAMPSHIRE																																
CONCORD	104	1000.3	1012.9	20.1	3.9	12.0	-0.8	30.0	6	-3.3	9+	0	6	6.7	71	99	22	23	16	4	0	0	1.3	23	16.5	W	3	4	10	17	7.0	64
MT WASHINGTON OBS	1909			4.2	-2.5	0.9	-0.4	12.2	29+	-10.6	5	0	22			281	133	43	23	3	495	178			51.4Y	W	6	2	3	26	8.7	29
NEW JERSEY																																
ATLANTIC CITY	20	1012.9	1015.2	20.1	8.1	14.1	-2.3	28.3	15	0.0	5	0	1	8.3	70	92	2	38	11	4	0	0	2.0	22	11.6	19	11	6	9	16	6.7	59
ATLANTIC CITY II	3			17.8	11.0	14.4	-0.9	25.6	21	5.0	19+	0	0			56	-22	23	10						14.3	WNW	3					
NEWARK	2	1013.2	1014.2	21.4	10.9	16.2	-0.4	28.3	15	4.4	19	0	0	8.3	62	105	13	55	11	2	0	0	1.8	24	15.6	29	21	2	13	16	7.4	
TRENTON U	17			21.4	11.1	16.3	-0.4	28.9	15	4.4	19	0	0			115	28	53	13		0	0			17.9	NW	21	6	11	14	6.5	48
NEW MEXICO																																
ALBUQUERQUE	1619	837.1	1010.9	25.5	8.7	17.1	-1.4	33.3	15	0.0	1	1	1	0.0	38	21	7	8	7	3	0	0	1.2	14	20.1	SE	15	17	9	5	3.8	76
CLAYTON	1515			21.6	6.8	14.2	-1.3	29.4	29+	1.1	8+	0	0			61	-6	25	12		0	0										
ROSWELL	1113	888.6	1010.7	28.0	12.7	20.4	0.1	34.4	29	6.1	1	6	0	5.0	41	21	-5	20	2	3	0	0	0.5	11	17.9	SW	4	13	12	6	4.5	91
NEW YORK																																
ALBANY	84	1003.1	1013.6	19.6	5.9	12.8	-1.5	27.8	15+	-1.1	13	0	3	7.2	71	124	41	38	15	6	T	0	1.8	23	16.1	NW	6	1	9	21	7.0	44
BINGHAMTON	485	955.6	1014.5	16.7	6.4	11.6	-1.3	23.9	15	0.0	8	0	1	5.6	69	64	-33	19	14	0	T	0	2.4	25	12.5	NW	19+	2	7	22	7.9	46
BUFFALO	215	987.8	1013.7	16.7	7.1	11.9	-0.9	26.1	16	0.6	8+	0	0	6.7	73	119	43	31	12	1	T	0	2.4	23	20.1	SW	5	3	6	22	8.1	46
NEW YORK U	40	1011.5	1014.9	20.9	10.4	15.7	-1.2	28.3	15	3.3	19	0	0	8.9	67	121	33	63	13	3	0	0	0.3	28	9.8	NW	20					60
NEW YORK KENNEDY	4	1013.9	1014.6	18.8	10.8	14.8	-0.7	26.7	15	5.6	19	0	0	8.9	72	90	1	31	12	3	0	0	2.5	23	15.6	32	21	6	12	13	6.4	
NEW YORK LA GUARDIA	3	1013.5	1014.5	20.7	12.1	16.4	-0.2	28.3	15	6.1	19	0	0	8.3	62	98	13	55	12	2	0	0	1.9	24	14.8	NW	21+	3	13	15	6.8	
ROCHESTER	167	993.6	1013.8	18.7	7.3	13.0	-0.6	27.2	5	1.7	8+	0	0	7.8	74	67	-4	21	14	1	10	T	2.5	25	14.3	SW	3	2	6	23	8.0	38
SYRACUSE	125	998.3	1013.4	17.9	6.7	12.3	-1.4	26.1	28	1.7	13+	0	0	6.7	71	188	112	69	17	2	T	T	1.9	25	13.9	NW	19	3	6	22	7.9	38
NORTH CAROLINA																																
ASHEVILLE	652	939.7	1015.5	21.3	9.2	15.3	-2.3	27.8	31	0.6	5	0	0	10.6	77	220	136	118	13	7	0	0	0.1	13	10.7	35	18	6	9	16	6.5	67

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2°C or above	Temperature: No. of days: Min 0°C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear 0.3	No. of days (sunrise to sunset): Partly cloudy 4.7	No. of days (sunrise to sunset): Cloudy 8.10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
				23.1	15.0	19.6	.1	27.4	27	5.1	5	0	0	15.0	75	132	45	32	3	5			11.8	21	13.6	23	17+	4	6	18	8	8	36
	224	988.2	1045.6	24.2	13.4	18.3	-2.1	30.6	31	4.4	9	0	0	11.7	67	100	34	52	4	5			11.3	21	15.2	18	15	4	8	18	8	8	78
	373	976.1	1045.6	23.6	11.9	17.9	-1.6	30.1	31	2.2	9	0	0	12.2	76	96	45	23	3	4			12.2	21	14.4	21	14	4	9	17	8	6.2	54
	37	991.1	1045.7	25.8	13.8	19.3	-.3	32.6	31	2.8	9	1	0	13.2	72	2	34	22	1	6			14.3	22	24	4	4	15	8.3	6.5		
	1	1014.2	1045.3	25.4	14.2	19.4	-.9	32.2	31	5.3	19	1	0	14.1	76	11	5	9	1	3			12.5	24	15	4	8	18	8.4	8.0		
		985.8	1044.3	21.4	4.7	13.4	.7	29.4	9	-5.6	3	0	6	3.9	56	29	-28	12	2	2	1	1	8.8	4	17			5	15	7	8.3	7.9	
	27	980.6	1044.0	24.3	8.1	13.2	.7	25.4	14	-6.1	6	0	0	4.4	44	13	-44	5	2	2	1	1	9.8	4	15	11	15	5	11	9	8.1	9	
	47	977.4	1044.4	21.6	9.4	13.5	1.2	27.2	31	-6.7	2	0	5	2.8	53	13	-47	6	1	2			9.9	4	17			4	4	13	8.5	7.3	
	705	939.2	1044.4	19..	4.7	12.4	-..9	24.1	30	-0.6	8	0	2	5.6	63	29	-41	14	3	2	1	1	11.6	7	13.6	7	7	5	12	13	8.4		
	230			22.6	10.0	16.4	-1.6	29.4	23	3.3	9+	0	0			43	-45	16	5					12.4								4.1		
	230	948.4	1044.4	18.6	7.3	12.9	-..7	24.1	29	-1.1	8	0	2	8.3	78	78	-24	23	3	3	1	1	13.3	7	17.4	5	7	5	15	13	6.8	6.2	
	249	944.1	1044.3	21.8	8.2	14.5	-1.7	29.2	20+	1.1	9+	0	0	5.7	61	38	-45	13	3	3	1	1	12.1	5	17.4	5	7	4	14	13	6.8	6.3	
	313	936.4	1044.4	21.6	8.4	15.1	-1.4	28.3	20+	-0.6	4	0	2	7.2	67	48	-44	16	3	4	1	1	13.3	7	17.4	5	7	4	14	13	8.1	7.2	
	308			19..	8.8	12.9	-2.7	26.1	3	0.6	4	0	1			62	-33	14	4	4	1	1	12.6	7	17.4	7	7	4	14	13	8.1		
	206	944.2	1044.3	21.1	8.4	13.3	-1.6	27.1	5	-2.2	8	0	1	7.7	70	44	-44	12	3	3	1	1	12.6	7	17.4	7	7	4	14	12	8.1	6.9	
	351	937.6	1043.4	19.2	8.0	13..	-..2	24.7	3	-1.1	8	0	2	8.1	79	41	-50	7	2	3	1	1	13.3	5	17+			5	12	13	8.1	8.0	
	34	944..	1044.4	24..	11..	17.6	-0.6	31..	3+	4.4	3+	0	0	10.5	68	11	-27	13																
	91	944.8	1044.1	23.3	11.0	17.2	-3.2	30..	27	2.2	3	0	0	11.1	71	21	-21	7	2	4			12.6	21	15.4	3	13	4	9	17	8.1	8.1	
	2	1014.4	1044.4	15.8	7.0	11.6	.3	24.4	15	2.8	18	0	0	7.8	78	54	-8	16																
	1068	911..	1044.4	21..	9.0	12.2	.9	30.8	28	-2.8	20	1	4			3	-46	2																
				..	4.0	12.0	-..7	30..	24+	0.0	20+	0	0	5.7	70	26	-44	12																
	194	969.1	1044.4	23.2	4.0	14.4	.0	33.4	18	0.0	24	1	0	4.4	59	23	-47	12																
	681	894.1	1044.4	21.5	7.3	14.9	.2	33.3	24	1.7	26	1	0	3.3	51	22	-48	7																
		894.1	1044.4	19.6	7.0	13.7	-..1	28.9	9	5.4	25+	0	1	8.1	69	58	-11	14																
	5	1011.4	1044.4	18.8	4.4	11.8	-1.4	27.8	26+	0.0	18	0	1			44	-24	7																
	140	944.4	1044.4	18.2	9.4	9.8	.1	27.8	17	-1.1	28	0	5			24	-21	7																
				28.4	22.0	25.2	-..2	31.1	28+	20.0	27+	0	0																					
		1014.4	1044.4	27.4	15.4	21.4	-..6	28.9	24	11.1	22+	0	0	20.6	78																			
	2	1014.4	1044.4	27.4	14.0	20.8	-..3	32.8	6+	22.2	13+	2	0																					
	1	1014.4	1044.4	28.1	14.8	21.5	-..4	31.1	26	22.8	14	0	0			24																		
		1014.4	1044.4	28.4	15.3	21.9	-..7	31.7	6+	22.2	27+	0	0			34																		
		1014.4	1044.4	29.6	15.4	22.5	-..2	31.1	23	20.6	13	0	0	23.3	85	43																		
		1014.4	1044.4	27.6	16.0	21.8	-..3	32.2	30+	21.1	25	0	0			28																		
		1014.4	1044.4	28.1	16.2	22.2	-..2	31.7	9	22.8	14	0	0			31																		
		1014.4	1044.4	28.6	15.2	21.9	-..3	31.1	29	20.6	3	0	0	21.7	77	32																		
	19	1014.4	1044.4	28.4	15.1	21.8	-..4	31.1	24+	20.6	5	0	0			33																		
	116	1014.4	1044.4	20.6	8.0	14.0	-...	28.9	15	-0.6	5	0	1	6.7	69	32	-41	9	3	3			11.6	7	17.4	7	7	5	12	13	8.2		
	120	1014.4	1044.4	21.4	8.4	14.4	-..2	28.1	24	1.7	8	0	1	7.2	78	41	-44	9	3	3	1	1	12.6	7	17.4	7	7	4	14	13	8.1		
		1014.4	1044.4	21.8	9.6	15.2	-...	28.1	15+	1.7	5	0	0	9.4	70	139	-24	24	4	4	1	1	13.3	7	17.4	7	7	4	14	13	8.1	8.1	
		1014.4	1044.4	22.1	11.4	17.4	-..3	28.3	23+	3.9	4	0	0	9.6	60	28	-44	9	3	4	1	1	12.6	7	17.4	7	7	4	14	13	8.1	8.1	
	340	944.4	1044.4	18.1	9.1	13.1	-2.3	27.1	17	0.0	6	0	1	9.1	76	51	-44	9	3	3	1	1	12.6	7	17.4	7	7	4	14	13	8.1	8.1	
	341	944.4	1044.4	20.2	8.0	13.1	-..2	24.7	17	2.1	13	0	0	8.7	68	41	-44	9	3	3	1	1	12.6	7	17.4	7	7	4	14	13	8.1	8.1	
	19	1014.4	1044.4	21.1	9.1	14.6	-...	27.8	17	3.1	13+	0	0	9.3	69	43	-41	9	3	3	1	1	12.6	7	17.4	7	7	4	14	13	8.1	8.1	
	28	1014.4	1044.4	20.4	10.2	14.3	-..4	28.3	28	6.1	19	0	0			32	-41	9	3	3	1	1	12.6	7	17.4	7	7	4	14	13	8.1	8.1	
	19	1014.4	1044.4	21.1	9.4	15.2	-..2	28.3	15+	2.2	7+	0	0	9.7	64	41	-44	9	3	3	1	1	12.6	7	17.4	7	7	4	14	13	8.1	8.1	
	1	1014.4	1044.4	21.1	10.4	15.4	-1.1	31.1	11+	6.1	19	0	0	15.8	73	114	-24	24	4	4	1	1	13.3	7	17.4	7	7	4	14	13	8.1	7.6	

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow Ice pellets: Total	Precipitation: Snow Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover tenths sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
SOUTH CAROLINA																																	
CHARLESTON	3			26.5	18.3	22.4	+0.6	34.6	31	11.7	9	0	0																			
COLUMBIA	68	1017.5	1021.4	27.3	13.0	20.0	-1.7	33.3	19	6.1	19	2	0	13.9	69	116	63	34	12	4			4.0	24	21.3	24	18	7	9	14	4.5	47
GREENVILLE-SPARTANBURG	292	981.7	1014.9	23.6	11.1	17.4	-3.2	29.4	31	2.2	5	0	0	12.2	75	208	131	74	12	4			4.0	24	22.5	24	18	7	9	15	4.3	55
SOUTH DAKOTA																																	
ABERDEEN	395	968.2	1016.1	22.4	5.4	13.9	0.7	28.9	18+	-4.4	6	0	5	2.8	50	17	8.5	6	4	2	8	4	3.2	3	15.6	26	2	12	7	12	5.3	
HURON	391	968.5	1016.4	21.9	3.4	12.6	-1.1	27.8	27+	-8.3	6	0	6	2.8	54	18	8.5	7	6	3	4	2	3.1	3	17.9	1	2	12	4	13	5.2	75
RAPID CITY	964	906.8	1015.2	23.3	5.7	13.0	0.1	31.7	14	-5.6	2	0	4	3.9	58	72	36	15	7	4	15	4	4.0	3	25.5	1	2	12	8	11	4.4	62
SIOUX FALLS	437	964.1	1015.9	22.5	4.3	13.9	-0.3	32.2	19	-3.9	6+	1	5	4.6	56	24	6.4	3	3	4	7	2	4.0	3	17.6	24	4	12	7	14	5.8	
TENNESSEE																																	
BRISTOL	450	961.4	1017.0	22.7	9.7	16.6	-2.1	28.3	31+	1.1	5	0	0	10.6	72	84	2	21	4	2			3.8	24	24.6	24	19	7	9	15	4.4	
CHATTANOOGA	209	992.5	1014.8	23.7	11.9	17.5	-2.8	29.4	31	2.8	4	0	0	12.2	76	140	67	52	13	6			3.6	23	24.4	23	13	7	9	15	4.3	54
KNOXVILLE	299	988.6	1014.6	23.6	11.3	17.4	-2.8	32.6	31	3.3	19+	0	0	11.7	73	140	57	56	13	3	0	0	3.6	23	24.4	23	17+	6	8	15	4.3	52
MEMPHIS	72	1004.4	1014.7	23.9	13.4	18.7	-2.9	36.0	30	4.4	4	0	0	11.1	62	72	9	52	11	3	0	0	4.4	22	26.4	22	31	11	2	18	4.3	67
NASHVILLE	181	993.0	1014.9	23.7	11.9	17.8	-2.5	28.9	31	1.1	4	0	0	12.2	72	157	55	45	15	5	0	0	3.6	22	24.6	24	4	10	7	14	4.3	64
OAK RIDGE	274			23.7	11.9	17.8	-2.5	28.9	31	-1.1	4	0	1			184	42	43	11	4	0	0	3.6		24.6		13	7	11	13	4.3	
TEXAS																																	
ABILENE	546	950.6	1014.4	26.9	13.3	20.1	-2.3	38.3	29	7.2	3	5	0	11.1	60	24	8.1	23	5	7	0	0	4.3	13	17.9	32	12	12	10	9	5.1	72
AMARILLO	1098	892.6	1014.4	23.2	8.1	15.7	-3.0	33.9	29	0.0	3	1	1	8.6	57	36	13.7	6	6	12	0	0	4.8	13	18.3	32	12	3	14	14	4.4	68
AUSTIN	187	991.0	1014.4	26.7	14.3	21.5	-2.5	31.1	31+	9.4	2	0	0	15.6	73	154	53	52	11	9	0	0	4.3	13	17.4	32	36	7	9	15	4.6	65
BROWNSVILLE	6	1012.2	1015.4	28.7	20.0	24.3	-1.9	32.2	31	12.2	2	1	0	20.0	79	124	67	52	8	3	0	0	4.4	12	19.4	36	26	8	8	15	4.3	58
CORPUS CHRISTI	12	1011.5	1013.1	28.5	18.4	23.6	-1.9	31.7	24	10.0	2	0	0	19.4	80	151	71	65	5	3	0	0	4.1	12	19.4	32	31+	6	15	8	5.4	
DALLAS - FORT WORTH	168	992.4	1013.4	26.4	14.2	20.3	-2.2	31.7	29+	10.0	18+	0	0	14.4	71	153	4	67	9	8	0	0	4.1	12	18.3	36	7	9	8	14	5.3	
DEL RIO	313	974.3	1012.	28.7	16.7	22.7	-2.9	36.7	31	9.4	2	5	0	15.6	68	72	1	26	9	10	0	0	4.1	12	15.6	27	4	17	7	7	5.4	84
EL PASO	1194	880.5	1013.1	28.9	12.7	20.8	-1.5	36.7	15	6.1	2	7	0	2.2	38	10	1	5	3	4	0	0	4.1	12	18.3	32	26					69
GALVESTON	3			25.3	20.3	22.8	-1.6	30.0	14	15.0	2	0	0			54	16	48	6	4			4.4	14	12.5	14	5	7	10	14	5.0	61
HOUSTON INTERCON	29	1010.2	1013.9	27.8	14.9	21.4	-2.9	33.2	30	7.2	2	1	0	16.7	78	147	12	98	6	4			4.1	14	16.3	32	36	7	10	14	4.8	79
LUBBOCK	993	903.8	1013.1	26.8	11.0	18.9	-1.4	36.7	29	5.0	1	3	0	6.1	50	3	5	26	3	6			4.1	14	14.3	2	2	13	8	10	4.8	
MIDLAND	869	914.3	1011.3	27.8	12.7	20.3	-2.1	36.1	29	6.1	2	8	0	7.8	53	27	2.7	14	6	7			4.1	14	14.3	25	5	15	7	9	4.4	
PORT ARTHUR	5	1013.5		28.1	18.4	22.3	-1.6	31.7	24+	9.4	2	0	0	17.8	80	67	37	45	6	6			4.1	14	14.8	14	7	4	12	15	4.8	73
SAN ANGELO	58	994.5	1012.1	27.1	13.6	20.4	-3.2	36.7	30	6.1	2	5	0	11.7	61	44	2.2	26	5	6			4.1	14	15.6	14	16	6	11	14	4.4	54
SAN ANTONIO	241	985.8	1013.3	27.3	16.3	21.8	-2.6	31.7	31+	8.3	2	0	0	16.1	72	147	69	94	11	10			4.9	14	33.2V	14	7	10	4	17	5.5	
VICTORIA	32	1009.5	1013.7	28.2	17.7	22.9	-1.8	31.1	30+	12.2	2	0	0	17.2	74	94	34	78	7	9			4.8	14	15.6	33	31	5	15	10	6.1	
WACO	153	995.4	1013.4	27.2	15.8	21.5	-2.1	32.2	29+	8.3	2	2	0	15.6	74	127	11	42	11	8			4.4	9	17.4	22	22	9	14	11	5.3	
WICHITA FALLS	303	977.7	1013.7	28.9	12.4	19.7	-2.7	36.7	31	6.7	3	3	0	12.2	67	58	5.6	18	9	8												
UTAH																																	
MILFORD	1533	844.6	1012.3	24.6	4.4	14.5	0.9	37.6	14	-3.3	1	0	1			3	-7	4	4						15.6	NE	14	13	8	10	4.7	81
SALT LAKE CITY	1288	870.6	1012.1	24.2	9.3	16.8	2.2	31.1	17	2.8	1	0	0	4.4	47	25	3.3	15	6	7			3.9	17	18.3	NW	14	9	11	11	5.5	77
VERNON	1291	868.9	1012.1	23.7	11.8	17.7	1.7	31.1	17	6.1	1	0	0	+0.6	33	18	1	10	5													
VERMONT																																	
BURLINGTON	101	1000.6	1012.8	18.2	7.1	12.6	-0.1	28.3	28	1.7	21+	0	0	6.1	67	143	72	41	9	4			3.4	21	13.4	S	5	3	3	25	8.1	43
VIRGINIA																																	
LYNCHBURG	279	981.7		22.7	10.3	16.6	-1.9	28.9	31+	0.0	4	0	1			135	53	47	12						1.3		19	7	7	17	6.6	62
NORFOLK	7	1014.9	1016.6	24.5	13.6	19.1	-0.2	32.2	31	5.0	9	1	0	11.7	65	95	10	53	11	2			3.0	20	13.4	31	18	10	4	17	6.3	51
RICHMOND	50	1009.1	1015.4	25.5	11.3	18.4	-0.7	32.8	31	1.1	9	1	0	12.2	69	94	9	22	12	6			3.7	33	15.6	32	31	7	11	13	6.5	50
ROANOKE	357	973.6	1015.2	23.5	10.1	16.8	-1.2	30.6	31	1.1	9	0	0	10.0	67	154	68	100	11	3												
WALLOPS ISLAND	3			19.7	12.0	15.9	-1.5	28.9	21	5.0	9	0	0			73	-10	37	8						20.6V		16					
WASHINGTON																																	
OLYMPIA	59	1011.2	1018.3	17.7	3.9	10.8	-1.4	27.8	9+	-1.7	6	0	3	6.1	76	68	24	15	7	1			4.1	21	9.8	20	31	6	5	20	7.1	
QUILLAYUTE	55	1011.2	1018.9	14.8	5.1	9.9	-0.6	22.8	15	-0.6	18	0	1	6.1	81	134	14	27	18	0			4.2	24	10.3	SW	27	4	6	21	7.8	40
SEATTLE	6			17.9	8.8	13.3	-0.3	27.2	9	6.1	18+	0	0			47	4	12	2						17.4	SSW	31					
SEATTLE-TACOMA	122	1002.4	1018.7	18.6	8.4	13.6	0.8	27.2	9+	5.6	28	0	0	7.2	68	41	-2	11	10	0	0	0	4.0	22	13.4	SW	16	7	6	18	6.7	69
SPOKANE	718	931.6	1015.7	19.8	5.2	12.5	-0.1	27.2	16	0.0	18	0	1	3.3	58	31	-6	8	11	2	0	0	3.4	22	18.8	W	10	6	9	16	6.3	71
STAMPEDE PASS R	1206	880.1		10.1	1.2	5.7	-0.5	19.4	7	-2.8	30	0	15			102	-4	33	20		147	2047						5	5	21	7.2	
WALLA WALLA	289			22.2	8.4	15.3	-0.4	30.6	16	5.6	29+	0	0			30	-10	8	9		0	0						9	13	9	5.4	71
YAKIMA	321	977.7	1016.1	22.2	4.6	13.4	-1.0	29.4	9	-1.7	28	0	3	1.7	47	2	-12	1	5	1	0	0	3.0	21	11.2	24	31+	10	8	13	5.7	

CLIMATOLOGICAL DATA

METRIC UNITS

MAY 1976

State and Station	Elevation (ground)	Pressure		Temperature										Average relative humidity	Precipitation							Wind				No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
											No. of days							No. of days		Snow, Ice pellets		Resultant speed	Resultant direction	Fastest mile (1.6 kilometers)			Clear 0-3	Partly cloudy 4-7	Cloudy 8-10		
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground			Speed	Direction	Date					
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
WEST INDIES																																
SAN JUAN P.R.	4	1014.6	1017.3	30.2	23.7	26.9	0.7	32.8	23	22.2	17+	2	0	18.9	62	75	-91	34	16	1	6	3	4.7	8	17.4	E	23	7	18	6	8.4	67
WEST VIRGINIA																																
BECKLEY	763	927.9	1015.4	20.1	7.9	14.0	-0.7	26.7	31	0.0	9+	0	2	5.7	67	96		27	12	4	T	0	1.3	02	14.3	30	17	5	9	17	7.1	
CHARLESTON	284	981.4	1015.3	23.5	9.7	16.6	-1.4	31.1	13	0.6	9	0	0	7.8	60	98	5	47	13	4	0	0	1.1	25	12.1	26	19	6	8	15	6.3	
ELKINS	496	944.8		21.0	5.4	13.2	-1.3	27.8	31	-3.9	9	0	6		49	46		13	11		T	0						4	10	17	7.1	
HUNTINGTON	252	985.1	1015.0	23.3	10.7	17.0	-1.1	31.1	13	2.2	9	0	0	7.2	57	61	-36	20	13	3	0	0	1.8	27	10.3	1	19	5	8	16	7.3	
PARKERSBURG	187			22.2	9.7	15.9	-1.8	30.0	13	1.7	9	0	0		71	20		26	13		0	0			16.1	SE	2					69
WISCONSIN																																
GREEN BAY	204	986.2	1014.9	17.8	4.4	11.2	-1.3	27.2	20	-1.7	6+	0	8	3.3	62	61	-17	23	11	0	T	T	2.8	36	14.3	NW	2	10	11	9	6.7	67
LA CROSSE	199	991.2	1019.6	20.9	6.4	13.8	-1.2	28.3	20	-0.6	6	0	2	5.6	62	74	-19		5	1	T		2.8	32								
MADISON	262	983.4	1014.8	20.1	4.4	12.4	-0.9	28.9	20	-2.2	7+	0	5	5.0	62	50	-37	28	8	1	2	0	2.5	06	13.0	W	5	8	9	14	6.1	61
MILWAUKEE	205	986.8	1015.1	16.2	6.4	11.4	-0.9	27.8	20	1.7	8+	0	0	5.6	70	94	23	51	9	2	T	T	1.4	25	17.0	NW	5	11	7	13	8.0	67
WYOMING																																
CASPER	1427	837.5	1014.6	20.2	3.8	12.0	0.5	29.4	18+	-1.7	16	0	5	3.3	63	69	19	28	12	9	26	T	2.9	29	16.5	E	14	4	15	12	8.4	
LARAMIE	1867	811.7	1013.8	17.5	3.7	10.6	-0.7	28.3	14	-1.1	10+	0	4	-0.6	53	53	-11	23	10	5	T	0	1.8	32	17.0	SW	28+	5	13	13	8.1	69
LANDER	1698	829.0	1015.5	19.9	5.1	12.6	1.0	27.8	18+	-1.1	1	0	2	0.0	46	53	-13	19	9	5	41	41	1.9	07	20.1	SW	28	4	14	11	8.6	78
SHERIDAN	1209	878.4	1014.5	20.6	4.1	12.4	0.7	29.4	28	-1.7	16	0	4	4.4	63	29	-34	7	11	8	0	0	2.8	5	19.2	W	14	2	11	13	8.3	64

HEATING DEGREE DAYS

(Base 65°F.)

MAY 1976

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	65	2645	2844
HUNTSVILLE	93	3141	3302
MOBILE	0	1390	1684
MONTGOMERY	33	2171	2269
ALASKA			
ANCHORAGE	615	10783	10599
ANNETTE	509	6837	6735
BARROW	1475	21005	19305
BARTER ISLAND	1391	20587	19067
BETHEL	843	14162	12801
BETTLES	651	16178	15659
BIG DELTA	581	14289	13441
COLD BAY	877	10076	9277
FAIRBANKS	597	14527	14134
GULKANA	697	13767	13609
HOMER	716	10192	9875
JUNEAU	597	8636	8653
KING SALMON	784	12133	11153
KODIAK	646	9253	8401
KOTZEBUE	1078	16731	15394
MC GRATH	660	15551	14202
NOME	983	15483	13740
ST. PAUL ISLAND	1055	11952	10396
SUMMIT	878	14506	13888
TALKEETNA	640	12074	11402
UNALAKLEET	874	14374	13532
VALDEZ	645	9897	10131
YAKUTAT	733	9374	9074
ARIZONA			
FLAGSTAFF	370	6689	7103
PHOENIX	0	1089	1552
TUCSON	5	1466	1752
WINSLOW	93	4849	4719
YUMA	0	910	1005
ARKANSAS			
FORT SMITH	80	3206	3336
LITTLE ROCK	70	2909	3354
CALIFORNIA			
BAKERSFIELD	0	2016	2185
BISHOP	56	4203	4275
BLUE CANYON	269	5339	5507
EUREKA U	424	4765	4385
FRESNO	10	2970	2641
LONG BEACH	8	1088	1583
LOS ANGELES	49	1240	1748
LOS ANGELES U	50	1326	1220
MT SHASTA R	272	5779	5712
OAKLAND	185	3096	2795
RED BLUFF	0	2803	2680
SACRAMENTO	-	2365	2423
SANDBERG R	187	5935	4311
SAN DIEGO	16	1031	1455
SAN FRANCISCO	222	3261	2922
SAN FRANCISCO U	262	2982	2886
SANTA MARIA	242	2999	2886
STOCKTON	42	2997	2791
COLORADO			
ALAMOSA	432	8491	8438
COLORADO SPRINGS	314	5943	6370
DENVER	254	5573	5936
GRAND JUNCTION	122	5837	5585
PUEBLO	175	5261	5366
CONNECTICUT			
BRIDGEPORT	251	5022	5437
HARTFORD	213	5687	6326
DELAWARE			
WILMINGTON	178	4455	4940
DIST. OF COLUMBIA			
WASHINGTON DULLES	232	4918	5005
WASHINGTON NATIONAL	80	3413	4211
FLORIDA			
APPALACHICOLA U	0	1353	1361
DAYTONA BEACH	0	851	897
FORT MYERS	0	397	457
JACKSONVILLE	9	1399	1327
KEY WEST	0	57	64
LAKELAND U	0	625	678
MIAMI	0	202	206
ORLANDO	0	660	733
PENSACOLA	1	1306	1578
TALLAHASSEE	4	1598	1563
TAMPA	0	668	718
WEST PALM BEACH	0	306	299
GEORGIA			
ATHENS	44	2600	2975
ATLANTA	48	2783	3095
AUGUSTA	29	2189	2547
COLUMBUS	13	2119	2378
MACON	17	2079	2240
ROME	59	3043	3342
SAVANNAH	11	1755	1952
IDAHO			
BOISE	189	5764	5736
LEWISTON	173	5068	5380
POCATELLO	219	6715	6925
ILLINOIS			
CAIRO U	84	3331	3833
CHICAGO O HARE	285	5643	6452
CHICAGO MIDWAY	264	5569	6101
MOLINE	235	5753	6375
PEORIA	221	5648	6081
ROCKFORD	296	6530	6810
SPRINGFIELD	188	5011	5546
INDIANA			
EVANSVILLE	139	4202	4624
FORT WAYNE	225	5592	6186
INDIANAPOLIS	203	5125	5566
SOUTH BEND	253	5496	6427
IOWA			
BURLINGTON	212	5537	6133
DES MOINES	160	5566	6684
DUBUQUE	294	6727	7228
SIOUX CITY	218	6328	6920
WATERLOO	263	6790	7376
KANSAS			
CONCORDIA	175	4976	5601
DODGE CITY	181	4449	5025
GOODLAND	259	5365	6064
TOPEKA	178	4724	5230
WICHITA	173	4350	4680
KENTUCKY			
COVINGTON	176	4606	5061
LEXINGTON	158	4461	4721
LOUISVILLE	111	3894	4640
LOUISIANA			
ALEXANDRIA	4	1829	2200
BATON ROUGE	0	1549	1670
LAKE CHARLES	0	1401	1498
NEW ORLEANS	0	1430	1465
SHREVEPORT	17	1815	2167
MAINE			
CARIBOU	426	9615	9462
PORTLAND	389	7289	7392
MARYLAND			
BALTIMORE	133	4053	4729
MASSACHUSETTS			
BLUE HILL OBS R	254	5853	6281
BOSTON	166	4881	5594
WORCHESTER	310	6557	6787
MICHIGAN			
ALPENA	430	7849	8368
DETROIT	230	5497	6202
DETROIT METRO	269	6027	6383
FLINT	322	6307	6976
GRAND RAPIDS	342	6511	6757
HOUGHTON LAKE	434	7742	8227
LANSING	338	6602	6856
MARQUETTE U	506	7850	8186
MUSKEGON	400	6284	6826
SAULT STE MARIE	534	8907	8993
MINNESOTA			
DULUTH	440	9377	9562
INTERNATIONAL FALLS	420	10135	10379
MINNEAPOLIS	195	7159	8094
ROCHESTER	283	7257	8149
ST CLOUD	303	8477	8783
MISSISSIPPI			
JACKSON	18	2097	2300
MERIDIAN	51	2444	2388
MISSOURI			
COLUMBIA REGIONAL	193	4680	5067
KANSAS CITY	178	4755	5149
ST JOSEPH	181	4885	5429
ST LOUIS	158	4455	4740
SPRINGFIELD	186	4148	4560
MONTANA			
BILLINGS	265	6754	7134
GLASGOW	215	7854	8818
GREAT FALLS	250	7013	7490
HAVRE	217	7193	8541
HELENA	331	7668	7996
KALISPELL	354	7586	8305
MILES CITY	195	7159	7772
MISSOULA	302	7175	7730
NEBRASKA			
GRAND ISLAND	198	5912	6385
LINCOLN	206	5666	6196
NORFORK	191	6299	6944
NORTH PLATTE	363	7126	6678
OMAHA	177	5343	6029
SCOTTSBLUFF	222	6129	6683
VALENTINE	268	6875	7227
NEVADA			
ELKO	286	6989	7293
ELY	346	7371	7573
LAS VEGAS	1	2317	2601
RENO	224	5978	5877
WINNEMUCCA	139	5625	6480
NEW HAMPSHIRE			
CONCORD	356	7731	7302
MT WASHINGTON OBS	967	13013	13269
NEW JERSEY			
ATLANTIC CITY	242	4950	4937
ATLANTIC CITY U	212	4311	4678
NEWARK	141	4607	5034
TRENTON U	142	4397	4947
NEW MEXICO			
ALBUQUERQUE	99	4510	4292
CLAYTON	228	4817	5169
ROSWELL	36	2825	3697
NEW YORK			
ALBANY	315	6461	6849
BINGHAMTON	374	6824	7210
BUFFALO	358	6378	6869
NEW YORK U	167	4586	4848
NEW YORK KENNEDY	195	4586	5175
NEW YORK LA GUARDIA	134	4362	4909
ROCHESTER	300	6222	6673
SYRACUSE	329	6416	6632
NORTH CAROLINA			
ASHEVILLE	168	4054	4223
CAPE HATTERAS R	52	2254	2731
CHARLOTTE	68	2952	3218
GREENSBORO	74	3287	3825
RALEIGH	52	3005	3514
WILMINGTON	32	1961	2433
NORTH DAKOTA			
BISMARCK	288	8044	8922
FARGO	285	8519	9174
WILLISTON	267	8577	9026
OHIO			
AKRON	308	5582	6191
CINCINNATI ABBE OB	138	4315	4837
CLEVELAND	309	5676	6114
COLUMBUS	229	5217	5689
DAYTON U	203	5068	5628
MANSFIELD	307	5922	5794
TOLEDO	277	6152	6349
YOUNGSTOWN	313	5933	6384
OKLAHOMA			
OKLAHOMA CITY	100	3135	3695
TULSA	109	3293	3680
OREGON			
ASTORIA	374	4872	5040
BURNS U	339	6979	7207
EUGENE	316	4450	4608
MEDFORD	238	4900	4836
PENDLETON	206	4705	5170
PORTLAND	258	4401	4664
SALEM	356	4971	4719
SEXTON SUMMIT R	472	6296	6138
PENNSYLVANIA			
ALLENTOWN	219	5291	5806
ERIE	386	6260	6771
HARRISBURG	193	4781	5224
PHILADELPHIA	119	4245	4865
PITTSBURGH	301	5535	5904
PITTSBURGH U	226	4970	5268
SCRANTON	265	5648	6249
WILLIAMSPORT	217	5523	5958
RHODE ISLAND			
BLOCK ISLAND	217	4925	5689
PROVIDENCE	223	5519	5936
SOUTH CAROLINA			
CHARLESTON	15	1871	2146
CHARLESTON U	2	1404	1904
COLUMBIA	26	2170	2598
GRNVLLE-SPRTNBRG	85	3049	3163
SOUTH DAKOTA			
ABERDEEN	245	7515	8524
HURON	306	7471	7983
RAPID CITY	295	6660	7190
SIOUX FALLS	261	7159	7773
TENNESSEE			
BRISTOL	134	3765	4298
CHATTANOOGA	87	3475	3505
KNOXVILLE	94	3487	3478
MEMPHIS	58	2630	3227
NASHVILLE	94	3154	3696
OAK RIDGE	148	3983	3944
TEXAS			
ABILENE	39	2428	2610
AMARILLO	171	3932	4173
AUSTIN	3	1465	1737
BROWNSVILLE	0	570	650
CORPUS CHRISTI	0	773	930
DALLAS FT WORTH	20	1926	2382
DEL RIO	5	1222	1523
EL PASO	26	2567	2678
GALVESTON	0	1004	1224
HOUSTON INTERCON	7	1449	1434
LUBBOCK	57	3058	3545
MIDLAND	38	2304	2621
PORT ARTHUR	0	1410	1518
SAN ANGELO	30	2157	2240
SAN ANTONIO	2	1424	1570
VICTORIA	0	1068	1227
WACO	6	1727	2058
WICHITA FALLS	40	2499	2904
UTAH			
MILFORD	207	6583	6330
SALT LAKE CITY	112	5678	5895
WENDOVER	69	5815	5724
VERMONT			
BURLINGTON	331	7433	7813
VIRGINIA			
LYNCHBURG	132	3922	4233
NORFORK	62	2922	3488
RICHMOND	78	3362	3939
ROANOKE	126	3787	4307
WALLOPS ISLAND	152	3639	4233
WASHINGTON			
OLYMPIA	410	5659	5333
QUILLAYUTE	460	5687	5657
SEATTLE	271	4412	4594
SEATTLE-TACOMA	262	4785	5018
SPOKANE	317	6632	6691
STAMPEDE PASS R	700	8965	8926
WALLA WALLA U	173	4532	4786
YAKIMA	267	5779	5915
WEST VIRGINIA			
BECKLEY	241	4879	5576
CHARLESTON	142	4072	4580
ELKINS	292	5376	5912
HUNTINGTON	125	4003	4613
PARKERSBURG U	164	4470	4809
WISCONSIN			
GREEN BAY	394	7722	8007
LA CROSSE	254	6974	7378
MADISON	333	6844	7458
MILWAUKEE	382	6449	7354
WYOMING			
CASPER	368	7180	7408
CHEYENNE	425	6990	7099
LANDER	316	7626	7719
SHERIDAN	328	7178	7540

COOLING DEGREE DAYS

(Base 65° F.)

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM	48	108	297
HUNTSVILLE	43	68	247
MOBILE	245	496	537
MONTGOMERY	75	135	384
ALASKA			
ANCHORAGE	0	0	0
ANNETTE	0	0	0
BARROW	0	0	0
BARTER ISLAND	0	0	0
BETHEL	0	0	0
BETTLES	0	0	0
BIG DELTA	0	0	0
COLD BAY	0	0	0
FAIRBANKS	0	0	0
GULKANA	0	0	0
HOMER	0	0	0
JUNEAU	0	0	0
KING SALMON	0	0	0
KODIAK	0	0	0
KOTZEBUE	0	0	0
MC GRATH	0	0	0
NOME	0	0	0
ST. PAUL ISLAND	0	0	0
SUMMIT	0	0	0
TALKEETNA	0	0	0
UNALAKLEET	0	0	0
VALDEZ	0	0	0
YAKUTAT	0	0	0
ARIZONA			
FLAGSTAFF	0	0	0
PHOENIX	495	708	531
TUCSON	306	411	392
WINSLOW	45	45	61
YUMA	476	666	744
ARKANSAS			
FORT SMITH	54	100	238
LITTLE ROCK	65	134	223
CALIFORNIA			
BAKERSFIELD	326	381	248
BISHOP	57	57	77
BLUE CANYON	12	12	0
EUREKA U	0	0	0
FRESNO	162	180	166
LONG BEACH	56	115	66
LOS ANGELES	1	40	38
LOS ANGELES U	32	87	110
MT SHASTA R	1	1	8
OAKLAND	2	21	0
RED BLUFF	218	221	192
SACRAMENTO	147	176	124
SANDBERG R	36	36	0
SAN DIEGO	31	58	51
SAN FRANCISCO	2	21	0
SAN FRANCISCO U	16	16	0
SANTA MARIA	7	7	0
STOCKTON	81	81	95
COLORADO			
ALAMOSA	0	0	0
COLORADO SPRINGS	0	0	6
DENVER	3	3	0
GRAND JUNCTION	32	32	47
PUEBLO	9	9	33
CONNECTICUT			
BRIDGEPORT	6	16	17
HARTFORD	18	65	18
DELAWARE			
WILMINGTON	25	62	48
DIST.OF COLUMBIA			
WASHINGTON DULLES	24	52	57
WASHINGTON NATIONAL	86	183	116
FLORIDA			
APPALACHICOLA U	207	331	528
DAYTONA BEACH	244	552	455
FORT MYERS	386	920	1000
JACKSONVILLE	213	374	526
KEY WEST	487	1520	1592
LAKELAND U	347	917	861
MIAMI	424	1305	1181
ORLANDO	374	857	815
PENSACOLA	201	423	563
TALLAHASSEE	241	390	527
TAMPA	348	802	865
WEST PALM BEACH	393	1031	1052
GEORGIA			
ATHENS	89	152	224
ATLANTA	67	106	193
AUGUSTA	127	248	309
COLUMBUS	159	212	367
MACON	148	250	418
ROME	72	99	183
SAVANNAH	164	297	428

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
HAWAII			
HILO	255	1078	1033
HONOLULU	393	1446	1341
KAHULUI	315	1238	1224
LIHUE	404	1476	1158
IDAHO			
BOISE	19	19	17
LEWISTON	15	15	18
POCATELLO	1	1	7
ILLINOIS			
CAIRO U	74	153	222
CHICAGO O HARE	6	42	95
CHICAGO MIDWAY	8	54	53
MOLINE	12	38	63
PEORIA	14	42	74
ROCKFORD	3	24	41
SPRINGFIELD	34	65	88
INDIANA			
EVANSVILLE	60	93	142
FORT WAYNE	9	35	48
INDIANAPOLIS	15	36	78
SOUTH BEND	13	31	40
IOWA			
BURLINGTON	17	36	78
DES MOINES	36	55	59
DUBUQUE	3	12	30
SIOUX CITY	26	39	68
WATERLOO	10	20	37
KANSAS			
CONCORDIA	29	39	94
DODGE CITY	32	55	98
GOODLAND	22	22	27
TOPEKA	40	75	125
WICHITA	32	53	155
KENTUCKY			
COVINGTON	28	93	90
LEXINGTON	26	65	118
LOUISVILLE	51	119	122
LOUISIANA			
ALEXANDRIA	160	358	366
BATON ROUGE	195	427	524
LAKE CHARLES	234	444	563
NEW ORLEANS	234	468	568
SHREVEPORT	112	314	420
MAINE			
CARIBOU	6	6	0
PORTLAND	2	2	0
MARYLAND			
BALTIMORE	51	110	70
MASSACHUSETTS			
BLUE HILL OBS R	13	61	10
BOSTON	25	66	20
WORCHESTER	7	44	10
MICHIGAN			
ALPENA	0	18	6
DETROIT	27	64	33
DETROIT METRO	10	40	20
FLINT	5	25	21
GRAND RAPIDS	4	31	25
HOUGHTON LAKE	0	13	11
LANSING	4	29	26
MARQUETTE	0	3	0
MUSKEGON	2	17	18
SAULT STE MARIE	2	5	0
MINNESOTA			
DULUTH	0	0	0
INTERNATIONAL FALLS	0	0	0
MINNEAPOLIS	14	28	26
ROCHESTER	5	14	19
ST CLOUD	0	5	14
MISSISSIPPI			
JACKSON	116	261	408
MERIDIAN	57	134	395
MISSOURI			
COLUMBIA REGIONAL	21	43	120
KANSAS CITY	29	51	132
ST JOSEPH	30	57	116
ST LOUIS	34	80	154
SPRINGFIELD	28	55	127
MONTANA			
BILLINGS	1	1	8
GLASCOW	9	9	9
GREAT FALLS	6	6	8
HAVRE	2	2	6
HELENA	0	0	0
KALISPELL	0	0	0
MILES CITY	17	17	19
MISSOULA	0	0	0

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
NEBRASKA			
GRAND ISLAND	24	38	69
LINCOLN	20	41	81
NORFOLK	34	43	48
NORTH PLATTE	5	5	36
OMAHA	34	55	96
SCOTTSBLUFF	18	18	16
VALENTINE	11	12	23
NEVADA			
ELKO	0	0	0
ELY	0	0	0
LAS VEGAS	404	483	372
RENO	2	9	14
WINNEMUCCA	7	7	11
NEW HAMPSHIRE			
CONCORD	9	17	8
MT WASHINGTON OBS	0	0	0
NEW JERSEY			
ATLANTIC CITY	15	28	25
ATLANTIC CITY U	5	16	13
NEWARK	30	80	47
TRENTON	34	86	45
NEW MEXICO			
ALBUQUERQUE	38	38	73
CLAYTON	7	7	17
ROSWELL	159	223	154
NEW YORK			
ALBANY	11	30	27
BINGHAMTON	3	24	13
BUFFALO	7	15	14
NEW YORK U	24	89	54
NEW YORK KENNEDY	5	14	27
NEW YORK LA GUARDIA	31	75	46
ROCHESTER	9	33	22
SYRACUSE	2	18	14
NORTH CAROLINA			
ASHEVILLE	3	5	66
CAPE HATTERAS R	127	186	126
CHARLOTTE	76	132	186
GREENSBORO	55	144	146
RALEIGH	116	221	150
WILMINGTON	183	354	276
NORTH DAKOTA			
BISMARCK	3	3	11
FARGO	4	4	11
WILLISTON	4	4	7
OHIO			
AKRON	14	30	36
CINCINNATI ABBE OB	41	104	113
CLEVELAND	14	40	37
COLUMBUS	23	49	55
DAYTON U	27	59	66
MANSFIELD	12	33	52
TOLEDO	10	41	37
YOUNGSTOWN	21	51	29
OKLAHOMA			
OKLAHOMA CITY	66	119	191
TULSA	52	93	205
OREGON			
ASTORIA	0	0	0
BURNS U	1	1	5
EUGENE	3	3	1
MEDFORD	6	6	11
PENDLETON	20	20	18
PORTLAND	4	4	7
SALEM	2	2	7
SEXTON SUMMIT R	3	3	0
PACIFIC AREA			
GUAM TAGUAC R	445	1944	1985
JOHNSTON	404	1737	1857
KURE R	543	2586	2475
MIDWAY	507	2455	2504
NAVASSA	470	2246	2434
PAGO PAGO	444	2305	2383
PONAPE R	477	2410	2372
TRUK MOEN ISLAND	511	2465	2446
WAKE	450	1967	1960
YAP R	502	2387	2429
PENNSYLVANIA			
ALLENTOWN	20	57	34
ERIE	9	15	13
HARRISBURG	22	69	69
PHILADELPHIA	58	122	67
PITTSBURGH	14	40	46
SCRANTON	16	62	30
WILLIAMSPORT		55	43
RHODE ISLAND			
BLOCK ISLAND	14	28	7
PROVIDENCE	13	53	8

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
SOUTH CAROLINA			
CHARLESTON	28	87	171
CHARLESTON U	63	116	148
COLUMBIA	100	181	209
GRNVLLE-SPRTNBRG	42	75	193
SOUTH DAKOTA			
ABERDEEN	2	2	21
HURON	2	2	23
RAPID CITY	4	4	15
SIOUX FALLS	24	26	32
TENNESSEE			
BRISTOL	24	42	105
CHATTANOOGA	69	69	201
KNOXVILLE	42	78	107
MEMPHIS	84	149	264
NASHVILLE	60	133	141
OAK RIDGE	17	24	102
TEXAS			
ABILENE	142	273	317
AMARILLO	32	45	128
AUSTIN	280	440	540
BROWNSVILLE	343	490	499
CORPUS CHRISTI	299	443	487
DALLAS FT WORTH	236	408	322
DEL RIO	252	327	393
EL PASO	147	245	283
GALVESTON	247	461	594
HOUSTON INTERCON	186	415	587
LUBBOCK	93	139	187
MIDLAND	152	234	324
PORT ARTHUR	226	436	523
SAN ANGELO	155	262	480
SAN ANTONIO	262	510	598
VICTORIA	283	617	805
WACO	193	379	484
WICHITA FALLS	124	238	352
UTAH			
MILFORD	0	0	0
SALT LAKE CITY	34	34	81
WENDOVER	43	43	42
VERMONT			
BURLINGTON	19	43	25
VIRGINIA			
LYNCHBURG	38	97	144
NORFOLK	110	237	264
RICHMOND	91	207	164
ROANOKE	47	110	93
WALLOPS ISLAND	21	33	57
WASHINGTON			
OLYMPIA	0	0	8
QUILLAYUTE	0	0	1
SEATTLE	1	5	6
SEATTLE-TACOMA	4	16	9
SPOKANE	0	0	5
STAMPEDE PASS R	0	0	0
WALLA WALLA	14	14	24
YAKIMA	0	0	17
WEST INDIES			
SAN JUAN P.R.	483	1972	1775
WEST VIRGINIA			
BECKLEY	11	47	24
CHARLESTON	46	130	118
ELKINS	10	17	43
HUNTINGTON	59	135	142
PARKERSBURG U	37	104	94
WISCONSIN			
GREEN BAY	1	7	22
LA CROSSE	7	12	34
MADISON	9	20	37
MILWAUKEE	2	27	22
WYOMING			
CASPER	0	0	1
CHEYENNE	0	0	0
LANDER	1	1	2
SHERIDAN	0	0	

STORM SUMMARY

MAY 1976

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				◊ ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS
Alabama	2	1			4				3		3	4		1		3													
Alaska *																													
Arizona	3	1										3																	
Arkansas	2	2			3				4			3			3	5											1	3	
California *																													
Colorado	16	4			1																								
Connecticut																3													
Delaware *																													
Florida	18	12		3	6			3	4			4			6	4												4	
Georgia	9	3		8	5			3	3		2	5	4			3													
Hawaii *																													
Idaho												5				4												3	
Illinois	2	2			4							3			1	2													
Indiana												4	C			2													
Iowa	1	1			4			5	C			4																4	C
Kansas								7	5																				
Kentucky								3	C		1	5				4													
Louisiana	1	1			2			5	4			5		1	1	5													
Maine												4				4													
Maryland & DC *																													
Massachusetts	1	1			3						1	3				2													
Michigan	1	1			4							5	C																C
Minnesota																4													
Mississippi	4	2		5	5		2	5	6			4	3			4													
Missouri								4	5		1	6			4													4	8
Montana *																													
Nebraska	3	3			3			4	5			4				3													
Nevada *																													
New Hampshire	1	1			5							3				4													
New Jersey *																													
New Mexico								4	4		1	4																	
New York												4				4				6	C							5	
North Carolina	5	2	3	15	6				5		1	4	2		2	2												6	5
North Dakota	1	1			5						1	1																	
Ohio											1	6	4			5	C											1	C
Oklahoma	7	3	2	5	6			5	6			5		3	6	5											3	7	
Oregon								2	6			2	2																
Pacific																											8	2	8	C
Pennsylvania									1			4				3												2	
Puerto Rico *																													
Rhode Island												3																	
South Carolina	8	4	1	12	6			4	5			4	4			4											2	7	6	4
South Dakota									5			5																	
Tennessee	2	2			4							4		2															
Texas	63	10	2	11	7		2	7	6	1	12	6	6	4		6	4										3		5	5
Utah *																													
Vermont												4								5	C							5	
Virginia	3	2			4				3		1	4																	
Virgin Islands *																													
Washington								4	2		3	4				5													
West Virginia										2	1	3																	
Wisconsin *																													
Wyoming	2	1			2							4	C	1	2														

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

MAY 1976

Herbert J. Thompson, Office of Hydrology

The most serious flood event of May was the disastrous flash flooding which occurred in the mountainous headwater areas of South Carolina, Georgia, and the Tennessee River Basin. There were 3 flood-related deaths and more than $16 million in damages. Major flash flooding also occurred in Tulsa, OK, with 3 deaths and nearly $12 million in losses.

The flooding on the Souris River in North Dakota, which reached record stages in April, continued into May. Rather general minor to moderate flooding occurred in the East Gulf of Mexico Drainage. The serious flooding of April in eastern Texas continued into May with additional flooding on several other Texas streams. Moderate flooding occurred in Michigan, southeastern Iowa, northern Missouri, on the Illinois River in Illinois, and ended on the upper Mississippi River early in May.

The annual spring breakup occurred in Alaska with record flooding on the Kuskokwim River. Snowmelt runoff began in the mountains of the West with some relatively minor flooding on several streams in the headwaters of the Missouri and Columbia Rivers.

The more significant events are discussed in greater detail below.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	HUDSON BAY DRAINAGE		
Souris River	The record flooding which began in March at some points on the Souris continued into May. Crests at all points were in April. Below normal rainfall over the basin during May aided the recession and the river dropped below flood stage from Sherwood down to Verendrye, ND. Flooding continued into June on the lower Souris.	G	G
	GREAT LAKES-ST. LAWRENCE DRAINAGE		
Lake Erie Drainage in Michigan	More than 2 inches of rain fell on the 5th-6th over the upper portions of the Clinton, Rouge, and Huron River Basins. The Clinton River crested more than 3 feet over flood stage at Fraser and about 1.5 feet over flood stage downstream at Mt. Clemens. The Rouge River crested about a foot over flood stage at Detroit and minor flooding occurred on the Huron River at Ann Arbor.	0	N.A.
Lake Champlain Drainage	Frequent rainfall occurred with a monthly total 150% of normal at Albany, NY. Heavy rain fell on the 1st, 11th-12th and 18th-19th. The latter period with amounts of about 2 inches caused flooding on Otter Creek with a crest less than a foot over flood stage at Center Rutland, VT.	0	N.A.
	ATLANTIC SLOPE DRAINAGE		
South Carolina Streams	Two periods of extremely heavy rainfall occurred in the higher elevations of western	2	841

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)

ATLANTIC SLOPE DRAINAGE-Cont'd

South Carolina during May. Amounts of 5 to 6 inches were reported for the 24 hours ending at 7 a.m. the 15th. The only flooding to result was on the Broad River, which crested 1.5 feet over flood stage at Blair.

The second period of heavy rainfall with amounts up to nearly 7 inches produced severe flash flooding in Oconee and Pickens Counties. The 24-hour amount ending at 7 a.m. the 29th at Wahalla of 6.93 inches was said by the observer to be the greatest 24 hour rainfall since April 1916. The storm system was described by the Columbia WSFO as follows:

> "The weather system which produced this torrential rainfall over higher elevations began with a low aloft over Arkansas on the 27th. A surface low and frontal system was beneath this upper low. By 7 a.m. on the 28th the low aloft was centered over western Tennessee with the surface low centered beneath the upper low. The warm front east-west through central Georgia extended west to a junction with the occlusion from the Tennessee low and the cold front in central Alabama. This "triple point" junction of occlusion, warm front, and cold front kept edging southeast and finally edged around the southern tip of the Appalachian Mountains and moved on a northeast course through west central South Carolina. Easterly upslope winds gave strong orographic uplift and convergence around the "triple point," or new low, combined with orographic uplift of moist air to produce this flash flood-producing rainfall."

Some river flooding also resulted from this storm with the Broad River cresting more than 3 feet over flood stage at Blair and the Congaree 1.5 feet over flood stage near St. Matthews. Minor flooding was reported on the Reedy and Edisto Rivers. Damages were from the flash flooding and were mostly road, bridge, and culvert washouts with some crop damage. Losses were estimated at $123,000 in Pickens County and $628,000 in Oconee County. Two flood-related deaths were reported.

Monthly rainfall totals over a small area of western South Carolina ranged from 15 to 20 inches with the total of 16.40 inches at Walhalla, also the highest since April 1916.

This heavy May rainfall over the headwaters of the Savannah River caused lowland flooding

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

MAY 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE-Cont'd		
	along the lower reach of the river beginning late in the month and cresting in June. Losses ... ng the lower Savannah from the May-June flo ng were estimated at $90,000.		
Georgia Streams	The storms of the 15th-16th and 28th-29th which affected western South Carolina (discussed above) caused similar amounts of rainfall over the headwaters of the Savannah, Oconee, Ocmulgee, and Chattahoochee River Basins in Georgia. Major flash flooding resulted from the storm of the 28th-29th, with losses estimated at $2,171,000 to agriculture, which includes some rain damage; $3,737,000 to public property, mostly highways and county roads; and $744,000 to private property. The Athens, GA, area was seriously affected with the Middle Oconee River reported to have crested about 5 feet over flood stage there. This is comparable to the floods of 1969 and 1972 at Athens. Damage was generally light along other main rivers although the Altamaha River crested nearly 3 feet over flood stage at Charlotte.	1	6,652
Southern Florida	Severe urban flooding was reported in the Palm Beach area the evening of the 28th with up to 3 feet of water in the streets. Nearly 5 inches of rain fell from 6 to 8:30 p.m.	0	N.A.
	EAST GULF OF MEXICO DRAINAGE		
Northwestern Florida Streams	Two periods of heavy rainfall occurred during May. Amounts of 4-6 inches on the 15th-17th and 6 to 7 inches on the 22d-24th combined with inflow from headwater areas discussed above to cause some flooding, although prior soil conditions had been dry. Nearly 3 feet of flooding was reported on the Ochlockonee at Havana and more than 4 feet on the Appalachicola at Bloutstown. Areas inundated were primarily timberland. Minor flooding occurred on the lower Choctawhatchee and Escambia Rivers.	0	N.A.
Alabama-Tombigbee Basin	Rainfall was well above normal with monthly totals averaging 235% of normal and some stations reporting 350% of normal. Heavy rains on the 14th-15th with amounts of up to over 4 inches caused significant flooding on some streams. The upper Cahaba crested nearly 5 feet over flood stage at Centerville, AL, 2 feet of flooding occurred on the lower Alabama at Claiborne, AL, 5 to 6 feet of flooding occurred on the lower Black Warrior River, and the lower Tombigbee River crested nearly 4 feet over flood stage at Coffeeville, AL.	0	N.A.
Pearl River Basin	Frequent rains with monthly totals generally in the range of 4 to 9 inches. Rains of over 3 inches around Jackson, MS, on the 14th-15th	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	EAST GULF OF MEXICO DRAINAGE-Cont'd		
	caused excessive releases from Ross Barnett Reservoir, with about 3 feet of flooding at Jackson which was contained by the levee system. Downstream at Bogalusa, LA, two periods of lowland flooding occurred.		
	UPPER MISSISSIPPI RIVER BASIN		
Minesota, Iowa, and Wisconsin Tributaries	Temperatures were above normal and rainfall well below normal over the northern portion of the area. Monthly rainfall totals were 2.5 to 3.5 inches below normal over the headwaters of the Mississippi, Minnesota, St. Croix, and Chippewa Rivers. In Iowa flooding continued from April on the Wapsipinicon, lower Cedar, and Skunk Rivers for the first few days of May. Two to four-inch rains fell on the 21st to the 24th over the middle Des Moines and upper Iowa Basins with significant rises on streams in the area and minor flooding on the North Raccoon River at Jefferson. On the 28th, 2.5 inches fell at Eldora in less than an hour with small stream flooding in the area.	0	N.A.
Illinois River	Flooding which began late in April continued into May on the lower Illinois augmented by rains of 1.5 to 2 inches on the 6th and 7th over the upper Illinois, causing 2 to 3 feet of flooding from Morris to LaSalle, IL. Crests of 1 to 3 feet over flood stage occurred on the lower Illinois following these rains.	0	N.A.
Mississippi River Main Stem	Flooding from late April rainfall continued into May on the Mississippi at most points from Keithsburg, IL, to Chester, IL, and ended at all points by the 8th. Crests were in April.	0	N.A.
	MISSOURI RIVER BASIN		
Headwater Area	The annual snowmelt runoff began about the middle of May. The snowpack as of the 1st of May was about 130% of the 1958-72 normal and some light flooding resulted on headwater streams as the melt progressed. No heavy rainfall was involved in the flooding. Crests less than a foot over flood stage occurred on the Big Hole River at Melrose, MT, the Jefferson River at Sappington, MT, and the Sun River at Great Falls, MT. Damages were confined to culverts and bridge approaches. The Missouri River also exceeded flood stage slightly at Toston, MT.	0	50
Cheyenne River Basin	Rains of about 5 inches caused urban flooding in North Rapid City, SD, on the 25th. No stream flooding was reported.	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

MAY 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	MISSOURI RIVER BASIN-Cont'd		
Floyd River Basin	On the 21st locally heavy rains caused some local flooding along the west branch of the Floyd River closing several roads for brief periods.	0	N.A.
Kansas River Basin	On the evening of the 5th a near stationary line of thunderstorms stretching from southwest to northeast Kansas produced rainfall amounts of 2.5 inches over the Big Soldier and Stranger Creek Basins. This rain combined with wet antecedent soil conditions resulted in crests about a foot over flood stage on these streams.	0	N.A.
Northern Missouri Tributaries	Heavy rains over the Grand River Basin on the 6th-7th with amounts of 2 inches or more caused flooding on the lower Grand, with a crest 3.5 feet over flood stage at Sumner, MO. More general rains on the 13th-17th amounting to nearly 3 inches caused flooding on several streams. The Blackwater River reached nearly 6 feet over flood stage at Valley City, the Little Platte at Smithville and the Grand at Sumner had crests about 2 feet over flood stage and the Lamine River crested more than 3 feet over flood stage at Clifton City. Minor flooding occurred along the Chariton River.	0	N.A.
	OHIO RIVER BASIN		
Tennessee River Basin	Two periods of severe flash flooding occurred during May in the headwaters of the Tennessee River in western North Carolina. On the 15th-16th heavy rainfall with 24-hour amounts generally in the range of 4 to nearly 11 inches occurred over the area. Nantahala reported 8.5 inches in 10 hours. Severe flash flooding resulted with losses estimated at $2.5 million, mainly agricultural and residential. Most seriously affected were Macon, Jackson, Haywood, and Buncombe Counties. About 200 residents were evacuated. The French Broad River crested nearly 3 feet over flood stage at Rosman. On the 28th-29th even more serious flash flooding occurred from rains again in the range of 4 to over 10 inches. Most seriously affected counties were Macon, Jackson, Haywood, Henderson, Transylvania, and Buncombe. Losses aproached $6.5 million. About 450 people were evacuated along the Little Tennessee, Cullasaja, Swannanoa, Pigeon, and French Broad Rivers. Crests of 1 to over 3 feet above flood stage were reported along the French Broad River from Rosman down to Marshall.	0	8,916
	WHITE RIVER BASIN		
Cache River	Rainfall averaging about 3 inches over the lower half of the basin on the 27th-28th caused flooding which continued into June,	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	WHITE RIVER BASIN-Cont'd		
	with a crest of 8.7 feet at Patterson, AR (flood stage 7 feet) on June 3. Agricultural crops, mostly soybeans, were affected.		
	ARKANSAS RIVER BASIN		
Cimarron River Basin	A major flash flood event occurred in Tulsa, OK, the evening of the 30th. Record stages occurred on Mingo Creek and near record stages on Joe and Fred Creeks. Rainfall amounts ranged up to over 11 inches with the headwaters of these streams receiving 5 to 11 inches in 3 hours. The return frequency of this rainfall was estimated at possibly 300 years while flood discharge frequencies were about 150 years. This excessive rainfall was attributed to thunderstorms moving very slowly northeastward along a nearly stationary front extending from southwest to northeast Oklahoma. The crest on Mingo Creek at the 34th street gage was 17.1 feet-3 feet over the previous maximum of record - while the crest of 19.5 feet at the 11th Street gage was one foot over the preious maximum. More than 2,000 living units were affected by flooding, including 255 houses destroyed and 741 suffering major damage, 100 mobile homes destroyed and 290 with major damage, and 416 multi-family units receiving major damage. At least 30 businesses received major damage. There were 3 flood-related deaths. The successful operation of flash flood alarm devices on Mingo Creek is credited with saving as many as 50 lives and $1.5 to 2 million in property damages. No other flooding occurred in the Arkansas Basin during May. However, flooding from heavy rains of late April continued the first day or so of May on the Little Arkansas River at Sedgewick, KS, the lower Cottonwood River and the Arkansas River at Arkansas City, KS, as discussed in the April report.	3	11,855
	RED RIVER BASIN		
Clear Boggy Creek	Rainfall of about 3.5 inches on the 12th-14th with more than 2 inches the 24 hours ending at 7 a.m. the 13th caused minor flooding at Caney, OK.	0	N.A.
Sulphur River	Rainfall above Hagansport, TX, during the first week of May totaled 2.5 inches and resulted in several days of flooding with a crest more than 2 feet over flood stage at Hagansport. At Naples, TX, the stream was high on the 1st and about 2 inches of rain both the first and second	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	RED RIVER BASIN-Cont'd		
	weeks caused a crest about 4 feet over flood stage on the 12th.		
	LOWER MISSISSIPPI BASIN		
Big Black River	Above normal rainfall during May with heaviest amounts of over 3 inches the 14th-15th caused several days of flooding on the upper Big Black River with a crest nearly 4 feet over flood stage at West, MS.	0	N.A.
Calcasieu River	Above normal rainfall occurred with monthly totals of more than 6 inches over much of the headwaters of the Calcasieu. The greatest total at Slagle, LA, was 11.54 inches. Extended flooding on the upper Calcasieu at Hineston, LA, with a crest nearly 5 feet over flood stage on the 13th. There was minor flooding at Oakdale, LA.	0	N.A.
Sabine River Basin	The serious flooding of April continued into May, lasting most of the month on the upper Sabine. This flooding was prolonged by above normal rainfall, which averaged 6.5 inches over the basin and which was spread quite evenly over the month. Some additional losses occurred due to delays in replanting crops. Rains of more than 2 inches caused a crest 3 feet over flood stage on the Lake Fork near Quitman, TX on the 8th.	0	N.A.
Neches River Basin	Heavy rains late in April caused flooding on the Angelina River at Lufkin, TX, and the Neches River near Alto, TX, with crests 3.3 and 1.5 feet over flood stage, respectively, early in May. Lowland flooding began on the Neches at Diboll on the 2d and continued most of the month, cresting 3.4 feet over flood stage on the 10th. Rains of over 4 inches on the 7th-8th caused over bank flow on the Neches at Evadale and on Pine Island Bayou which crested just short of flood stage at Saur Lake. Village Creek crested more than 3 feet over flood stage at Kountz.	0	N.A.
Trinity River Basin	Flooding from the heavy rains of late April continued into May at Moss Bluff, TX, and began on the 1st at Liberty, TX. Rains of 3 to 5 inches the 7th-8th caused crests about 4 feet over flood stage at both points on the lower Trinity. Flooding continued most of the month on the lower Trinity, prolonged by heavy releases from Lake Livingston.	0	N.A.
Brazos River Basin	Flooding continued from April on the Navasota River near Bryan, TX, with a second crest also 2 feet over flood stage on the 2d. Rains of 2 to 3 inches over the headwaters of the Navasota the 7th-8th caused 1 to 2 feet of flooding along the river.	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars
	LOWER MISSISSIPPI BASIN-Cont'd		
Colorado River Basin (Texas)	Twin Buttes Reservoir on the Concho River near San Angelo, reached a maximum capacity of 186, 847 acre-feet on the 13th, which is 1,000 acre-feet above conservation storage. This was the highest level recorded in this reservoir since its establishment in 1961. Also, on the 13th, Red Arroyo in San Angelo flooded several streets. Rainfall within the city amounted to less than 2 inches, yet some streets were covered with as much as 2 feet of water. Rains of 5 to 6 inches on April 28 caused minor lowland flooding on the upper Colorado River between Ira and Colorado City. A stage of 14.43 feet was reached at 2:25 p.m. CDT on April 28 at Ira. Flood stage is 8 feet at this point.	0	N.A.
San Antonio River Basin	Record flooding occurred along Olmos Creek in San Antonio, TX, in response to rainfall of up to 3.5 inches over the Olmos Creek Basin. The crest at the Dresden Drive gage was 13.2 feet equaling the record stage of May 7, 1975. Records began there in 1968 with flood stage of 9 feet. About 75 homes and numerous automobiles were damaged. However, the San Antonio River crested well below flood stage.	0	200
Guadalupe River	Locally heavy rain of 3 inches or more on the 5th-9th caused flooding on the lower Guadalupe from Gonzales, TX, downstream. More than 9 feet of flooding occurred at Gonzales and 5 to over 6 feet of flooding from Victoria to Dupont, TX, where flooding continued into June.	0	N.A.
Nueces River Basin	Rains of up to 4 inches on the 7th caused 3 to 7 feet of flooding along the Frio River from near Derby, TX, down to Calliham. A second crest of nearly 8 feet over flood stage occurred at Calliham on the 15th due to 1 to 3-inch rains over the Derby to Calliham section of the basin. On the Nueces River the first period of rain caused flooding on the lower portion of the river with a crest 6 feet over flood stage at Mathis Bridge, TX. The second period of rainfall caused a crest nearly 6 feet over flood stage near Tilden, TX.	0	N.A.
	PACIFIC SLOPE DRAINAGE		
Upper Columbia River Basin	The snowpack as of May 1 averaged about 125% of normal over the Clark Fork and St. Joe River Basins. Snowmelt began the second week of May and combined with light rain to cause minor flooding. Crests up to a foot over flood stage were reported on the Clark Fork from Drummond to Missoula, MT, the Yaak River at Troy, MT, and the St. Joe River at Calder, ID.	0	N.A.
Snake River Basin	Spring runoff peaked out during the month of May for most parts of the basin. Mountain snowpack was well above normal in the upper	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)

PACIFIC SLOPE DRAINAGE-Cont'd

Snake River drainage early in the month. However, ideal weather conditions during May allowed the bulk of the snow to melt and runoff with only minor flooding.

Most flooding during May was a result of snowmelt on the Henry's Fork and Portneuf Rivers in eastern Idaho. The Portneuf River remained above flood stage from the 7th to the 28th along the Pocatello reach. Meanwhile, minor flooding along the Henry's Fork lasted from about the 9th to the 22d. These streams were above flood stage for a relatively long period of time, however, no flood stage was exceeded on these streams by more than a foot.

Flooding along the Portneuf was centered in the extreme southern parts of Pocatello and in the Inkom area. Mostly only farmland was affected. Water levels were approaching a few low-lying residences however, and diking was necessary to protect some rural roads. A similar situation occurred along the Henry's Fork River. Here the main effects were noticed in areas from the town of St. Anthony downstream to the junction of the Henry's Fork and Snake Rivers. Water caused some inconvenience by temporarily flooding parks in St. Anthony, and a few miles west of Rexburg.

Some flooding also occurred along the Snake River below Palisades Dam. At Heise the Snake River rose above the 7-foot flood stage on the 14th, and remained above flood stage for the rest of the month. The highest level reached at this gage was 8.04 feet on the 24th. This high water came as a result of the regulation of Palisades Reservoir in anticipation of the peak runoff from the extreme upper Snake River drainage in western Wyoming. Since the area downstream from Palisades Dam is not heavily populated, flooding here was again limited mainly to farmland along the river. Flooding here did reach a picnic area at a commercial resort at Heise.

One other episode of flooding was reported in the basin during May: On the night of the 10th, showers left as much as an inch of rain in some areas of the northern and central mountains of Idaho. This rain brought a rapid but short-lived rise to the South Fork of the Clearwater River. At mid-morning on the 11th the Idaho Highway Department reported that State Highway 14 had been closed by high water near Whiskey Creek, about 4 miles west of Elk City. Within a few hours the water had receded and the road was reopened. This rise on the South Fork of the Clearwater moved rapidly downstream, causing no further flooding.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

MAY 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ALASKA		
Kenaii Peninsula	Unseasonably warm weather accompanied by rain caused ice jam flooding on the Anchor River near Homer. It is unusual for large ice to form in this area. Several homes and a sawmill were inundated for a week by backwater from the jams.	0	N.A.
Susitna River	Unseasonably warm weather in early May began the breakup process sooner than normal. The river ice was still very hard when the low elevation snowmelt entered the channel. As a result, the ice broke up into large floes which could not pass through channel constrictions where jams formed. One significant jam formed near Curry on the Alaska Railroad. As ice and water accumulated behind the jam, the tracks were flooded and pushed off the grade by ice. Rail traffic was halted for several days between Anchorage and Fairbanks.	0	N.A.
Kuskokwim River	This year's breakup started at Nikolai May 2, and the river was clear of ice 550 miles downstream by the 21st. Severe ice jams caused record high stages in the Kuskokwim Delta area before the ice moved out. The flood stage at Bethel reached 14.4 feet on the 19th, which exceeded the previous record of 14.0 feet set in May 1941. Flood stage at Bethel is 9 feet. In addition to the flooding, dozens of homes in towns from Tuluksak to Napakiak were damaged by ice floes moving through the towns. Walls of houses were caved in as they were moved off their foundations. 200 people were evacuated from the villages of Tuluksak, Kwethluk, Oscarville, and Napaiskak. Major flooding also occurred on the Upper Kuskokwim River. At McGrath the river crested 25.7 feet on the 9th, a foot below the record. Flood stage at McGrath is 21 feet.	0	N.A.
Yukon River Basin	The spring breakup of ice in the Fairbanks area was rapid but uneventful. The Chena River, which had open water as early as March due to heat pollution, lost the last of its ice the first week in May. The crest of 7.2 feet occurred at Fairbanks on the 5th. Flood stage at Fairbanks is 12 feet. The Tanana River ice moved out also the first week in May with numerous small ice jams and only one major ice jam. This occurred just downstream of Manley Hot Springs and caused minor flooding of the town of Manley Hot Springs. One-third of the runway and one house were flooded. Damages were very light. The remainder of the breakup on the Tanana was mild. The ice in the Alaskan portion of the Yukon began moving on the 2d at Eagle and the breakup process on the Yukon lasted the entire month. The last ice was observed leaving the Yukon mouth at the end of May. During the breakup numerous ice jams were observed, however, only 3 villages were flooded	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ALASKA-Cont'd		
	as a result of ice jams. One major ice jam held back the breakup process and water for five days, and although the high water threatened Kaltag and Nulato on the Yukon River, they did not flood. Nulato reported some water over the road from the village to the airport. Numerous unoccupied fish camps in the area were flooded. Water was observed over the banks in uninhabited areas estimated up to 6 feet. At the mouth of the Yukon ice jamming caused minor flooding in the villages of Emmonak and Alakanuk, (combined population est. 1000). No evacuations from the villages were necessary, although residents of older dwellings were forced to move in with neighbors in some of the newer homes erected on pilings.		

G - Included in previous months report.

FLOOD STAGE DATA

All dates in May unless otherwise specified

MAY 1976

River and station	Flood stage	Above flood stages —dates		Crest	
		From—	To—	Stage	Date
	Ft.			Ft	
HUDSON BAY DRAINAGE					
Souris River:					
Burlington, ND	16	Mar 29	9	25.15	Apr 10
Foxholm, ND	21	Mar 11	8	24.29	Apr 17
Minot, ND	10	Mar 23	18	16.86	Apr 17
Sherwood, ND	14	Mar 26	15	21.27	Apr 17
Westhope, ND	1500 MSL	Apr 6	12	1556.08	Apr 18
Logan, ND	[illegible]	Apr 2	15	38.28	Apr 19
Sawyer, ND	22	Apr [illegible]	15	26.17	Apr [illegible]
Velva, ND	1500 MSL	Mar 23	18	1509.9	Apr 20
Verendrye, ND	15	Apr [illegible]	[illegible]	18.1	Apr [illegible]
Towner, ND	[illegible]	Apr 1	1	56.65	Apr 22
Bantry, N.D.	11	Mar 24	1	14.51	Apr [illegible]
Westhope, N. Dak.	10	Mar 31	1	A19.19	Apr [illegible]
GREAT LAKES-ST. LAWRENCE DRAINAGE					
Clinton River:					
Fraser, MI	13	[illegible]	8	16.2	7
Mt. Clemens, MI	13	[illegible]	7	14.6	7
Middle River Rouge:					
Garden City, MI	7	[illegible]	8	[illegible]	U
River Rouge:					
Detroit, MI	15	[illegible]	7	16.1	7
Huron River:					
Ann Arbor, MI	1	[illegible]	9	15.4	8
Otter Creek:					
Center Rutland, VT	8	19	21	8.76	20
ATLANTIC SLOPE DRAINAGE					
Broad:					
Blair, SC	14	17	17	15.5	17
		30	31	17.4	31
Reedy:					
Greenville, SC	8	29	29	8.66	29
Congaree:					
St. Matthews 17 NW, SC	11	31	Jun 1	116.5	Jun 1
Edisto:					
Givhans Ferry, SC	10	[illegible]	27	10.3	[illegible]
Savannah:					
Millhaven-Wade 2 SE, GA	15	24	25	15.2	24
Clyo, GA	11	27	1	13.9	Jun 14
Ocmulgee:					
Macon, GA	18	15	16	20.5	15
		29	30	19.3	30
Middle Oconee:					
Athens, GA	15	U	[illegible]	E20.0	30
Altamaha:					
Charlotte, GA	15	[illegible]	29	17.7	26
Satilla:					
Waycross, GA	16	[illegible]	31	16.7	29
EAST GULF OF MEXICO DRAINAGE					
Ochlockonee:					
Havana, FL	25	21	31	27.89	28
Apalachicola:					
Blountstown, FL	15	17	30	19.33	19
Choctawhatchee:					
Caryville, FL	12	17	26	12.34	19
		27	28	12.05	28

River and station	Flood stage	Above flood stages —dates		Crest	
		From—	To—	Stage	Date
	Ft.			Ft.	
EAST GULF OF MEXICO DRAINAGE					
Escambia:					
Century, FL	17	26	26	17.0	26
Cahaba:					
Centreville, AL	23	15	16	27.4	15
Alabama:					
Claiborne, AL	40	18	22	42.0	20
Black Warrior:					
Holt Lock and Dam, AL	140	15	15	141.3	15
Tuscaloosa (Oliver) Lock and Dam, AL	47	15	16	52.6	15
Warrior Lock and Dam, AL	30	16	20	35.3	18
Tombigbee:					
Demopolis Lock and Dam, AL	48	17	20	49.2	19
Coffeeville Lock and Dam, AL	43	16	23	46.6	21
Pearl:					
Jackson, MS	18	15	21	21.1	18
Bogalusa, LA	15	11	13	E16.4	12
		17	24	17.4	19
UPPER MISSISSIPPI RIVER BASIN					
Wapsipinicon River:					
De Witt, IA	10	Apr 26	2	11.22	Apr 30
Cedar River:					
Conesville, IA	9	Apr 21	4	#12.62	Apr 26
Skunk River:					
Brighton, IA	14	Apr 24	2	18.97	Apr 25
Augusta, IA	15	Apr 24	1	22.34	Apr 28
North Raccoon River:					
Jefferson, IA	10	24	24	10.2	24
Illinois River:					
Morris, IL	13	7	8	14.95	7
La Salle, IL	20	7	11	22.70	8
Peoria, IL	18	9	14	#18.8	11
Havana, IL	14	Apr 27	24	#16.6	11
Beardstown, IL	14	Apr 28	23	#16.8	13
Meredosia, IL	32	Apr 30	21	#33.2	2
Mississippi River:					
Keithsburg, IL	12	Apr 26	1	13.59	Apr 28
Burlington, IA	15	Apr 26	1	16.0	Apr 29
Gregory Landing, MO	16	Apr 24	2	#19.1	Apr 25
Quincy, IL	17	Apr 24	3	22.2	Apr 26
Hannibal, MO	16	Apr 24	5	#22.0	Apr 27
Louisiana, MO	15	Apr 24	5	20.5	Apr 27
Clarksville, MO (Dam 24 TW)	25	Apr 25	6	#30.7	Apr 28
Winfield, MO (Dam 25 TW)	26	Apr 26	7	#30.8	Apr 29
Grafton, IL	18	Apr 26	8	21.9	Apr 30
Alton, IL (Dam 26 TW)	21	Apr 27	3	23.5	Apr 30
Chester, IL	27	Apr 29	4	28.1	1
MISSOURI BASIN					
Big Hole River:					
Melrose, MT	6	11	31	6.65	20
Jefferson River:					
Sappington, MT	9	15	31	9.43	22
Sun River:					
Great Falls, MT (14th Street)	15	15	17	15.6	16
Little Platte River:					
Smithville, MO	24	16	16	25.89	18

FLOOD STAGE DATA

River and station	Flood stage	Annual maximum dates		Maximum known		
[illegible] BASIN [illegible]	[illegible]					
Soldier Creek:						
[illegible], KS	17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stranger Creek:						
[illegible], KS	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Grand River:						
Sumner, MO	2[illegible]	[illegible]	[illegible]	29.48		
		[illegible]	[illegible]	28.10		[illegible]
[illegible], MO	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chariton River:						
[illegible], IA	15	1[illegible]	1[illegible]	[illegible]		1[illegible]
Prairie Hill, MO	1[illegible]	1[illegible]	[illegible]	15.8		1[illegible]
Lamine River:						
Clifton City, MO	1[illegible]	1[illegible]	1[illegible]	[illegible]		1[illegible]
Blackwater River:						
Valley City, MO	[illegible]	1[illegible]	1[illegible]	27.70		[illegible]
[illegible], MO	2[illegible]	1[illegible]	2[illegible]	25.34		[illegible]
Missouri River:						
Toston, MT	10	1[illegible]	[illegible]	19.[illegible]		[illegible]
[illegible] RIVER BASIN						
French Broad:						
[illegible], NC	8	1[illegible]	15	1[illegible]		15
		[illegible]	29	11.12		29
Blantyre, NC	1[illegible]	1[illegible]	31	20.2		29
Biltmore, NC	1[illegible]	29	29	13.3		29
Asheville, NC	8	29	[illegible]	9.53		29
Marshall, NC	10	29	29	11.1		29
[illegible] BASIN						
Cache:						
Patterson, AR	7	29	1[illegible]	8.[illegible]	Jun	[illegible]
ARKANSAS BASIN						
Little Arkansas:						
Sedgwick, KS	2[illegible]	Apr [illegible]	1	23.8	Apr	28
Cottonwood:						
Plymouth, KS	2[illegible]	Apr [illegible]	2	@32.31	Apr	19
Emporia, KS	20	Apr [illegible]	2	22.45	Apr	20
Arkansas:						
Arkansas City, KS	1[illegible]	Apr [illegible]	1	18.94	Apr	[illegible]
RED RIVER BASIN						
Clear Boggy Creek:						
Caney, OK	1[illegible]	1[illegible]	1[illegible]	@19.31		1[illegible]
Sulphur:						
Hawkins, Ft. TX	[illegible]	[illegible]	1[illegible]	46.30		[illegible]
Naples, TX	1[illegible]	Apr [illegible]	1	27.58	Apr	2[illegible]
				E26.0		[illegible]
LOWER MISSISSIPPI BASIN						
Big Black:						
West, MS	1[illegible]	1[illegible]	[illegible]	15.9		[illegible]
WEST GULF OF MEXICO DRAINAGE						
Calcasieu:						
Kinnebo, LA	1[illegible]	[illegible]	20	16.7		[illegible]
Oakdale, LA	1[illegible]	[illegible]	16	12.6		[illegible]
Lake Fork:						
Quitman, TX (near)	1[illegible]	[illegible]	[illegible]	19.05		[illegible]
Sabine:						
Emory, TX	1[illegible]	Apr [illegible]	3	17.2	Apr	[illegible]
		[illegible]	18	15.67		[illegible]

River and station	Flood stage	Annual maximum dates		Maximum known		
[illegible]	[illegible]					
[illegible]						
[illegible], TX		[illegible]	[illegible]	19.7		[illegible]
Cladewater, TX	[illegible]	[illegible]	[illegible]	33.7		[illegible]
[illegible], TX	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
		[illegible]	[illegible]	27.37		[illegible]
Angelina:						
[illegible], TX (near)	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Village Creek:						
[illegible], TX (near)	1[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Neches:						
[illegible], TX	1[illegible]	[illegible]	[illegible]	17.55		[illegible]
Diboll, TX (near)	[illegible]	[illegible]	[illegible]	13.38		[illegible]
Richland Creek:						
[illegible], TX (near)	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Trinity:						
Long Lake, TX	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
[illegible], TX	[illegible]	[illegible]	[illegible]	27.7		[illegible]
Moss Bluff, TX	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Navasota:						
[illegible], TX (near)	1[illegible]	[illegible]	[illegible]	1[illegible]		[illegible]
Bryan, TX (near)	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
		[illegible]	[illegible]	20	13.07	[illegible]
Colorado:						
Ira, TX (near)	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Olmos Creek:						
San Antonio, TX (Dresden Drive)	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Guadalupe:						
[illegible], TX	[illegible]	[illegible]	[illegible]	29.3		[illegible]
[illegible], TX	[illegible]	[illegible]	1[illegible]	22.0		[illegible]
Victoria, TX	[illegible]	[illegible]	1[illegible]	25.85		[illegible]
Dupont, TX	[illegible]	[illegible]	[illegible]	26.4		[illegible]
Frio:						
Derby, TX (near)	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Calliham, TX	[illegible]	[illegible]	[illegible]	18.90		[illegible]
		[illegible]	[illegible]	19.62		[illegible]
Nueces:						
Tilden 14 S, TX	[illegible]	[illegible]	[illegible]	19.6		[illegible]
Mathis Bridge, TX	[illegible]	[illegible]	[illegible]	20.9		[illegible]
Calallen, TX	[illegible]	[illegible]	[illegible]	7.8		[illegible]
PACIFIC SLOPE DRAINAGE						
COLUMBIA BASIN						
[illegible]						
[illegible], MT	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Clark Fork:						
[illegible], MT	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Missoula, MT (above)	[illegible]	[illegible]	[illegible]	11.98		[illegible]
St. Joe:						
Calder, ID	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Henrys Fork:						
St. Anthony, ID	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Rexburg, ID	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Portneuf:						
Pocatello, ID	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Snake:						
[illegible], WY	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]

FLOOD STAGE DATA

(All dates in May unless otherwise specified)

MAY 1976

River and station	Flood stage	Above flood stages –dates		Crest	
		From–	To–	Stage	Date
	Ft			Ft	
ALASKA					
[illegible]					
[illegible], AK	21	[illegible]	[illegible]	25.7	9
Bethel, AK	9	[illegible]	[illegible]	14.4	19

See Previous Monthly Reports for Additional Crest Data

[illegible] - Flooding Continued From Previous Month (s) Date Unknown

River and station	Flood stage	Above flood stages –dates		Crest	
		From–	To–	Stage	Date
	Ft			Ft	

RAWINSONDE DATA

Average monthly values

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
ALBANY, NY 1004 MB						
SFC	30	86	10.5	7.9	22	1.2
1000	29	146	10.7	5.6	21	1.8
950	30	546	10.1	4.3	25	4.6
900	30	995	8.2	1.0	27	6.5
850	30	1,464	5.4	-1.2	27	7.0
800	30	1,957	2.5	-4.2	27	7.5
750	30	2,477	-.5	-8.8	26	8.5
700	30	3,026	-3.1	-13.9	26	9.4
650	30	3,609	-6.2	-16.7	26	11.0
600	30	4,232	-9.6	-20.0	26	12.9
550	30	4,899	-13.4	-27.0	26	14.7
500	30	5,618	-18.2	-30.4	26	16.9
450	30	6,397	-23.6	-35.4	26	18.0
400	30	7,247	-29.7	-41.2	26	20.5
350	30	8,185	-36.4	-45.7	26	23.8
300	30	9,239	-43.9	-49.5	26	27.1
250	30	10,444	-50.7		26	27.0
200	30	11,880	-55.7		26	25.6
175	30	12,729	-56.3		26	20.5
150	30	13,701	-56.2		26	17.1
125	30	14,863	-57.3		26	13.3
100	30	16,269	-58.7		26	8.6
80	30	17,673	-57.5		27	5.4
70	30	18,519	-57.1		26	3.7
60	29	19,500	-56.1		25	1.2
50	28	20,666	-54.4		07	.9
40	28	22,100	-53.0		09	2.5
30	27	23,959	-51.9		08	3.9
25	27	25,144	-50.6		08	4.9
20	25	26,609	-48.5		09	4.6
15	20	28,514	-45.1		08	4.1
10	7	31,259	-40.2			
7						
ALBUQUERQUE, NM 83' MB						
SFC	31	1,619	10.3	-.7	11	2.3
1000						
950						
900						
850	31	1,485	11.2	3.1	27	1.6
800	31	1,990	9.5	-.2	28	1.3
750	31	2,524	7.0	-3.4	30	1.3
700	31	3,088	3.8	-7.8	30	2.2
650	31	3,686	.1	-12.5	3	4.8
600	31	4,322	-4.3	-15.7	3	7.8
550	31	5,001	-9.0	-20.5	30	9.0
500	31	5,730	-14.7	-27.8	30	8.5
450	31	6,519	-20.1	-33.7	29	8.9
400	31	7,381	-26.8	-39.9	29	9.3
350	31	8,333	-34.3	-46.4	29	10.8
300	31	9,390	-42.6		29	13.3
250	31	10,597	-51.7		29	14.6
200	31	12,020	-59.0		28	14.9
175	31	12,858	-60.1		28	14.0
150	30	13,819	-60.3		28	14.4
125	30	14,953	-61.2		28	14.0
100	30	16,331	-63.6		28	9.8
80	30	17,700	-63.5		28	4.6
70	30	18,523	-62.4		29	4.3
60	29	19,476	-61.1		31	3.3
50	30	20,617	-58.2		03	1.3
40	29	22,030	-55.3		08	2.4
30	29	23,878	-52.7		08	3.8
25	29	25,061	-50.9		07	3.3
20	28	26,523	-48.3		07	1.8
15	26	28,423	-45.8		01	1.4
10	16	31,143	-41.0		35	3.4
AMARILLO, TX 891 MB						
SFC	31	1,095	10.1	6.0	26	.4
1000						
950						
900						
850	31	1,485	11.2	3.1	27	1.6
800	31	1,990	9.5	-.2	28	1.3
750	31	2,524	7.0	-3.4	30	1.3
700	31	3,088	3.8	-7.8	30	2.2
650	31	3,686	.1	-12.5	3	4.8
600	31	4,322	-4.3	-15.7	3	7.8
550	31	5,001	-9.0	-20.5	30	9.0
500	31	5,730	-14.7	-27.8	30	8.5
450	31	6,519	-20.1	-33.7	29	8.9
400	31	7,381	-26.8	-39.9	29	9.3
350	31	8,333	-34.3	-46.4	29	10.8
300	31	9,390	-42.6		29	13.3
250	31	10,597	-51.7		29	14.6
200	31	12,020	-59.0		28	14.9
175	31	12,858	-60.1		28	14.0
150	30	13,819	-60.3		28	14.4
125	30	14,953	-61.2		28	14.0
100	30	16,331	-63.6		28	9.8
80	30	17,700	-63.5		28	4.6
70	30	18,523	-62.4		29	4.3
60	29	19,476	-61.1		31	3.3
50	30	20,617	-58.2		03	1.3
40	29	22,030	-55.3		08	2.4
30	29	23,878	-52.7		08	3.8
25	29	25,061	-50.9		07	3.3
20	28	26,523	-48.3		07	1.8
15	26	28,423	-45.8		01	1.4
10	16	31,143	-41.0		35	3.4
ANCHORAGE, AK [illegible] MB						
SFC	31	45	5.2	.5	26	3.8
1000	29	92	7.8	-.8	26	4.2
950	31	480	4.1	-.5	25	2.3
900	31	918	1.2	-.5	12	2.4
850	31	1,375	-2.4	-7.7	11	3.4
800	31	1,853	-5.9	-11.9	12	4.8
750	31	2,356	-9.5	-13.1	12	5.5
700	31	2,885	-13.1	-17.1	13	5.4
650	31	3,446	-16.5	-22.1	12	5.3
600	31	4,043	-20.5	-25.1	12	5.5
550	31	4,682	-24.8	-30.5	14	5.8
500	31	5,369	-29.5	-35.1	14	6.2
450	31	6,112	-35.0	-40.7	14	6.4
400	31	6,923	-41.2	-46.3	14	5.9
350	31	7,821	-47.3		12	5.8
300	31	8,827	-51.8		12	5.4
250	31	10,012	-50.1		14	3.3
200	31	11,480	-47.3		15	.5
175	31	12,363	-47.3		16	2.3
150	31	13,383	-47.5		16	1.9
125	31	14,589	-48.0		17	2.5
100	31	16,059	-48.4		16	2.2
80	31	17,529	-48.7		14	2.3
70	31	18,406	-48.8		14	2.8
60	29	19,419	-48.1		13	2.5
50	29	20,614	-49.5		12	3.1
40	28	22,070	-49.6		11	3.2
30	27	23,949	-49.6		09	4.5
25	27	25,146	-48.4		10	5.9
20	25	26,620	-46.9		10	6.5
15	19	28,549	-44.5		09	8.1
10	5	31,312	-40.2		10	9.2
ANNETTE, AK [illegible] MB						
SFC	31	37	-.2	-1.2	11	.2
1000	24	105	1.6	-.6	11	.4
950	31	531	.1	-.4	11	.2
900	31	967	.0	-.0	11	.0
850	31	1,423	-.0	-4.3	11	.0
800	31	1,902	-2.0	-8.3	11	.0
750	31	2,406	-7.4		11	.0
700	31	2,940	-10.8		11	.0
650	31	3,506	-14.2		11	.0
600	31	4,109	-17.9		11	.0
550	31	4,754	-22.1		11	.0
500	31	5,449	-26.7		11	.0
450	31	6,201	-32.4		11	.0
400	31	7,022	-38.4		11	.0
350	31	7,931			11	.0
300	31	8,947	-50.		11	.0
250	31	10,132	-51.0		11	.0
200	31	11,580	-50.0		11	.0
175	31	12,454	-50.3		11	.0
150	31	13,459	-50.0		11	.0
125	31	14,660	-51.2		11	.0
100	31	16,095	-51.0		11	.0
80	31	17,542	-52.1		11	.0
70	31	18,420	-52.3		11	.0
60	31	19,400	-52.7		11	.0
50	29	20,584	-52.5		11	.0
40	29	22,027	-52.1		11	.0
30	29	23,894	-51.6		11	.0
25	28	25,082	-50.4		11	.0
20	27	26,552	-48.5		11	.0
15	26	28,456	-45.0		11	.0
10	15	31,151	-41.7		11	.0
7	5	33,492	-40.0		11	.0
ATHENS, GA 986 MB						
SFC	31	246	14.0	11.3	26	.3
1000	30	130	-9.2	-10.2	07	4.4
950	31	562	15.5	10.4	25	2.6
900	31	1,019	13.4	6.9	24	3.9
850	31	1,499	11.0	3.2	25	4.8
800	31	2,003	8.5	-1.1	25	5.9
750	31	2,534	5.7	-5.7	25	7.6
700	31	3,096	2.6	-9.8	25	9.6
650	31	3,692	-.8	-13.1	25	10.0
600	31	4,327	-4.5	-17.5	26	10.5
550	31	5,006	-8.7	-21.2	25	11.9
500	31	5,739	-13.4	-26.3	25	13.4
450	31	6,533	-18.7	-31.3	25	14.7
400	31	7,399	-25.1	-37.7	25	16.8
350	31	8,358	-32.5	-44.2	25	18.8
300	31	9,423	-40.8	-48.6	26	21.7
250	31	10,639	-50.1		26	24.3
200	31	12,066	-59.2		26	27.7
175	31	12,899	-61.2		26	26.3
150	31	13,854	-61.9		26	22.4
125	31	14,979	-63.1		26	18.2
100	31	16,347	-64.8		27	12.2
80	30	17,709	-64.0		28	7.4
70	30	18,530	-62.9		28	4.2
60	30	19,484	-61.0		29	1.5
50	28	20,622	-58.1		08	.6
40	28	22,037	-55.3		08	2.8
30	24	23,889	-52.3		08	4.5
25	23	25,083	-50.8		08	4.6
20	21	26,552	-47.7		09	3.9
15	16	28,467	-44.5		36	1.6
10	6	31,201	-39.7			
BARROW, AK 1015 MB						
SFC	31	8	-9.1	-10.5	06	3.4
1000	30	130	-9.2	-10.2	07	4.4
950	31	523	-8.9	-11.7	09	5.1
900	31	943	-7.3	-13.5	09	5.0
850	31	1,389	-7.5	-15.2	09	4.3
800	31	1,860	-8.6	-18.8	10	3.2
750	31	2,359	-10.8	-21.0	10	2.9
700	31	2,887	-13.3	-23.8	12	1.9
650	31	3,448	-16.4	-28.4	11	1.6
600	31	4,045	-19.8	-31.1	14	1.3
550	31	4,686	-24.1	-35.9	14	.9
500	31	5,374	-29.0	-38.9	15	1.0
450	31	6,120	-34.2	-44.0	16	.5
400	31	6,934	-40.3	-48.7	17	.7
350	31	7,835	-46.4		20	.7
300	31	8,845	-51.1		17	.3
250	31	10,029	-50.9		15	.5
200	31	11,491	-48.2		18	1.1
175	31	12,373	-47.4		19	1.2
150	31	13,393	-47.2		19	1.6
125	31	14,601	-46.9		19	1.7
100	31	16,080	-46.8		16	1.8
80	31	17,559	-46.8		14	1.7
70	30	18,444	-46.5		14	2.4
60	30	19,467	-46.4		13	1.9
50	29	20,677	-46.0		11	3.0
40	28	22,177	-45.8		10	4.2
30	20	24,096	-45.4		10	5.7
25	13	25,277	-44.1		10	6.7
20	3	26,762	-42.8			
BARTER ISLAND, AK 1012 MB						
SFC	31	15	-7.8	-9.0	08	4.2
1000	30	112	-8.1	-8.9	08	3.6
950	31	508	-6.2	-8.7	09	4.8
900	31	933	-4.6	-9.4	10	2.8
850	31	1,384	-4.3	-10.4	12	2.8
800	31	1,860	-6.5	-13.6	16	1.1
750	31	2,363	-9.1	-16.2	23	1.6
700	31	2,893	-12.1	-20.5	23	1.9
650	31	3,457	-15.2	-23.4	21	2.6
600	31	4,058	-19.1	-26.6	22	3.2
550	31	4,700	-23.4	-31.3	22	3.1
500	31	5,390	-28.6	-35.8	23	4.1
450	31	6,137	-33.9	-41.3	24	5.0
400	31	6,952	-39.9	-45.4	24	4.0
350	31	7,855	-45.9		23	4.4
300	31	8,865	-51.6		22	4.1
250	31	10,045	-51.6		21	4.2
200	31	11,506	-47.7		22	4.1
175	31	12,389	-47.1		21	3.8
150	31	13,411	-46.9		21	3.5
125	31	14,620	-46.9		21	2.6
100	31	16,099	-46.9		20	2.4
80	31	17,579	-46.6		16	1.8
70	30	18,470	-46.6		15	1.8
60	30	19,493	-46.6		13	2.3
50	30	20,705	-46.1		11	3.2
40	30	22,189	-45.9		11	4.7
30	30	24,108	-45.3		10	4.8
25	29	25,326	-44.6		10	7.5
20	29	26,826	-43.3		09	8.8
15	27	28,758	-41.6		10	9.4
10	18	31,460	-38.3		10	11.1
7	5	34,005	-33.5			
BETHEL, AK 1003 MB						
SFC	31	39	.5	-1.1	30	1.4
1000	23	90	1.1	-1.6	27	1.2
950	31	475	1.3	-3.0	35	.3
900	31	908	-1.3	-6.8	13	.9
850	31	1,362	-3.8	-9.8	14	1.4
800	31	1,838	-6.8	-12.5	14	1.7
750	31	2,339	-9.5	-17.1	15	2.4
700	31	2,869	-12.6	-20.1	14	2.8
650	31	3,432	-15.7	-24.3	13	2.9
600	31	4,032	-19.4	-28.6	11	2.8
550	31	4,673	-23.8	-32.5	11	2.3
500	31	5,363	-28.3	-38.7	11	1.6
450	31	6,110	-33.5	-42.7	10	1.0
400	31	6,927	-39.8	-46.6	06	.7
350	31	7,829	-44.3		12	.6
300	30	8,837	-52.0		30	1.2
250	31	10,018	-50.9		30	2.6
200	31	11,482	-48.1		29	1.8
175	31	12,363	-47.7		29	1.5
150	31	13,381	-47.9		27	1.7
125	31	14,583	-48.6		26	2.3
100	31	16,051	-48.5		18	.9
80	30	17,516	-48.6		10	1.4
70	30	18,395	-48.6		13	1.8
60	30	19,408	-49.1		12	2.1
50	30	20,604	-49.2		12	2.5
40	29	22,070	-49.4		10	2.9
30	29	23,957	-49.0		10	3.6
25	28	25,156	-48.6		09	4.9
20	27	26,627	-47.1		09	5.9
15	25	28,566	-43.9		08	7.4
10	5	31,279	-39.7			
BISMARCK, ND 456 MB						
SFC	31	503	2.3	-.4	31	.4
1000	27	568	0.4	-.0	31	.5
950	31	1,008	7.1	-1.7	31	.3
900	31	1,480	6.0	-4.0	31	.3
850	31	1,975	4.4	-8.6	33	.5
800	31	2,498	1.5	-11.3	35	.5
750	31	3,051	-1.4	-14.4	33	.5
700	31	3,639	-3.9	-16.8	34	.5
650	31	4,257	-7.5	-19.6	34	.5
600	31	4,939	-11.7	-24.9	33	.5
550	31	5,663	-16.3	-29.2	31	.5
500	31	6,447	-21.9	-34.3	31	.5
450	31	7,302	-28.0	-39.5	31	.5
400	31	8,248	-35.4	-45.0	31	.5
350	31	9,297	-44.0		31	.5
300	31	10,493	-53.0		29	.5
250	31	11,901	-59.8		29	.5
200	31	12,733	-59.5		31	.5
175	31	13,707	-57.4		31	.5
150	31	14,860	-58.3		31	.5
125	31	16,269	-58.5		31	.5
100	31	17,676	-57.2		31	.5
80	31	18,522	-56.6		31	.5
70	31	19,502	-56.2		31	.5
60	31	20,671	-55.8		31	.5
50	30	22,109	-52.6		31	.5
40	29	23,973	-51.3		31	.5
30	27	25,159	-50.5		31	.5
25	26	26,617	-48.8		31	.5
20	25	28,519	-44.8		31	.5
15	19	31,260	-40.6		31	.5
10	18	33,724	-35.3		31	.5
7	15	36,394	-31.3		31	.5
5	7	37,704	-29.0		31	.5
BOISE, ID 915 MB						
SFC	31	871	8.5	1.4	19	.7
1000						
950						
900	31	1,008	11.3	.8	31	.7
850	31	1,485	10.8	-1.6	33	2.9
800	31	1,988	7.8	-4.4	31	2.9
750	31	2,517	4.3	-6.6	28	2.6
700	31	3,074	.7	-9.4	26	3.7
650	31	3,666	-3.2	-14.4	26	5.3
600	31	4,294	-7.3	-18.9	25	8.1
550	31	4,966	-11.9	-23.5	25	10.5
500	31	5,689	-16.8	-28.9	25	11.6
450	31	6,472	-22.4	-35.2	25	11.8
400	31	7,326	-29.0	-41.0	25	12.8
350	31	8,269	-36.3	-46.8	26	14.3
300	31	9,318	-44.5		25	14.1
250	31	10,515	-53.5		26	14.1
200	31	11,927	-59.5		26	13.1
175	31	12,762	-59.2		26	12.5
150	31	13,732	-58.1		26	10.8
125	31	14,879	-58.8		26	9.2
100	30	16,282	-59.7		26	6.3
80	30	17,677	-59.6		27	3.3
70	30	18,514	-58.5		28	2.1
60	30	19,486	-57.5		28	1.2
50	29	20,643	-56.0		04	1.1
40	29	22,069	-54.1		08	2.6
30	27	23,925	-52.5		07	3.9
25	27	25,107	-51.1		08	4.5
20	24	26,570	-49.0		07	4.4
15	17	28,469	-45.8		08	5.1
10	13	31,157	-40.9		07	5.7
BOOTHVILLE, LA 1014 MB						
SFC	31	1	20.6	18.4	09	.4
1000	31	121	20.9	17.8	16	.5
950	31	564	18.5	14.6	21	1.8
900	31	1,027	16.2	9.8	22	3.1
850	31	1,512	13.8	4.8	24	4.3
800	31	2,022	11.6	.1	25	5.3
750	31	2,559	8.8	-3.0	26	6.2
700	31	3,126	5.2	-7.5	27	7.3
650	31	3,728	1.7	-12.0	27	8.5
600	31	4,368	-2.5	-15.8	27	10.1
550	31	5,053	-7.1	-19.6	27	11.4
500	31	5,789	-12.0	-24.4	27	12.4
450	31	6,587	-17.3	-29.5	27	13.8
400	31	7,460	-23.4	-35.4	26	16.1
350	31	8,427	-30.3	-41.7	26	18.0
300	31	9,501	-38.9	-49.1	26	20.3
250	31	10,727	-48.1		26	24.1
200	31	12,167	-57.1		26	28.2
175	31	13,005	-60.9		26	29.6
150	31	13,957	-63.5		27	28.0
125	31	15,070	-65.5		27	22.4
100	31	16,420	-67.7		27	14.2
80	31	17,764	-66.8		27	6.9
70	31	18,576	-64.5		29	3.3
60	31	19,482	-62.7		06	1.5
50	31	20,654	-59.4		09	2.3
40	29	22,067	-55.6		08	4.6
30	26	23,922	-51.9		09	5.7
25	25	25,116	-49.4		09	5.5
20	24	26,590	-46.3		08	2.7
15	18	28,511	-43.2		07	.8
10	7	31,297	-38.0			
BROWNSVILLE, TX 1011 MB						
SFC	31	7	21.2	19.4	15	1.4
1000	31	104	22.5	20.1	14	2.5
950	31	549	20.0	15.9	15	4.7
900	31	1,016	19.3	8.3	17	4.2
850	31	1,506	17.0	5.0	18	4.8
800	31	2,021	14.9	.6	20	4.9
750	31	2,565	12.2	-4.3	22	4.1
700	31	3,139	8.5	-8.0	27	4.1
650	31	3,747	4.2	-11.4	28	4.4
600	31	4,393	-.5	-14.2	29	4.1
550	31	5,082	-5.7	-18.7	29	4.2
500	31	5,827	-11.1	-23.4	29	4.3
450	31	6,623	-16.0	-29.6	28	4.1
400	31	7,500	-22.3	-34.8	28	4.1
350	31	8,470	-29.3	-42.5	28	4.1
300	31	9,550	-37.6	-49.2	27	4.3
250	31	10,784	-46.6		27	4.0
200	31	12,231	-56.5		27	3.8
175	31	13,070	-60.9		27	3.6
150	31	14,017	-66.1		27	3.3
125	31	15,112	-69.6		27	2.9
100	31	16,436	-71.6		27	1.4
80	31	17,758	-69.8		27	.4
70	31	18,557	-67.4		33	1.1
60	31	19,494	-64.3		06	1.1
50	30	20,619	-60.6		10	1.4
40	29	22,022	-56.0		09	3.1
30	28	23,871	-51.3		09	4.2
25	27	25,065	-49.		09	4.3
20	26	26,545	-45.1		08	4.3
15	25	28,481	-41.8		08	4.8
10	7	31,267	-35.3			
BUFFALO, NY 988 MB						
SFC	31	218	9.4	5.9	23	1.8
1000	31	272	10.2	5.9	23	1.8
950	31	581	8.6	3.0	23	1.8
900	31	1,038	6.4	-.4	23	1.8
850	31	1,510	4.6	-1.4	23	1.8
800	31	2,019	1.9	-4.2	23	1.8
750	31	2,548	-1.2	-8.8	26	1.8
700	31	3,108	-4.1	-11.8	26	1.8
650	31	3,703	-7.2	-15.9	26	1.8
600	31	4,339	-10.6	-18.9	26	1.8
550	31	5,019	-14.5	-24.5	26	1.8
500	31	5,751	-19.5	-30.4	26	1.8
450	31	6,542	-25.3	-36.3	26	1.8
400	31	7,413	-32.9	-44.8	26	1.8
350	31	8,374	-41.7	-42.0	26	1.8
300	31	9,442	-50.6	-47.5	26	1.8
250	31	10,660	-51.0		26	1.8
200	31	12,080	-59.8		26	1.8
175	31	12,917	-62.4		26	1.8
150	31	13,867	-62.9		26	1.8
125	31	14,933	-63.0		26	1.8
100	31	16,355	-63.9		26	1.8
80	31	17,722	-63.0		26	1.8
70	31	18,542	-61.6		26	1.8
60	31	19,504	-59.7		26	1.8
50	31	20,650	-57.2		26	1.8
40	31	22,070	-53.7		26	1.8
30	31	23,921	-52.4		26	1.8
25	31	25,108	-51.1		26	1.8
20	31	26,569	-49.3		26	1.8
15	27	28,479	-46.1		26	1.8
10	15	31,203	-40.7		26	1.8
CAPE HATTERAS, NC [illegible] MB						
SFC	31	4	17.9	15.0	24	.5
1000	31	142	18.5	18.4	24	.5
950	31	581	16.6	15.0	24	.5
900	31	1,038	15.4	5.4	24	.5
850	31	1,510	14.6	4.4

RAWINSONDE DATA

Average monthly values

MAY 1976

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m p s
CARIBOU, ME — 989 MB						
SFC	31	271	7.4	-4.5	20	4.2
1000	1	178	12.6	8.8	06	2.3
950	31	500	7.0	2.3	23	1.8
900	31	964	4.5	-1.3	25	3.9
850	31	1,410	3.3	-1.4	26	5.3
800	31	1,919	.5	-5.3	26	5.8
750	31	2,445	-2.2	-8.6	26	6.7
700	31	2,980	-5.1	-12.2	25	7.6
650	31	3,550	-7.8	-17.3	25	8.9
600	31	4,179	-11.6	-21.3	26	9.8
550	31	4,841	-15.5	-25.8	26	11.1
500	31	5,554	-20.4	-31.1	25	12.0
450	31	6,326	-25.8	-36.8	25	13.9
400	31	7,169	-31.8	-41.8	24	14.3
350	30	8,111	-38.2	-46.5	25	14.3
300	30	9,149	-44.7	-51.0	25	17.3
250	30	10,352	-50.9		25	20.0
200	28	11,779	-53.8		25	17.9
175	28	12,636	-53.6		26	15.8
150	28	13,628	-54.0		26	12.1
125	28	14,796	-54.9		26	10.3
100	27	16,218	-55.4		25	7.3
80	27	17,484	-55.0		24	4.9
70	27	18,498	-54.0		24	2.4
60	26	19,489	-53.8		21	1.3
50	24	20,661	-52.8		14	.8
40	20	22,007	-52.0		09	2.6
30	20	23,976	-51.0		09	5.0
25	21	25,070	-49.1		09	5.1
20	18	26,169	-48.6		09	5.9
15	18	27,438	-45.8		09	6.7
10	5	31,139	-42.1			
7						
CENTREVILLE, AL — 999 MB						
SFC	31	140	13.7	12.6	05	.8
1000	11	178	12.6	10.8	06	2.3
950	31	565	15.5	9.1	20	1.1
900	31	1,022	13.	5.2	24	3.3
850	31	1,502	10.9	2.8	25	4.4
800	31	2,006	8.8	-2.5	25	5.3
750	31	2,538	6.1	-6.6	25	6.8
700	31	3,099	2.6	-9.8	25	8.3
650	31	3,690	-.7	-13.2	26	9.7
600	31	4,330	-4.7	-18.4	26	10.4
550	31	5,009	-8.8	-22.0	25	11.5
500	31	5,741	-13.6	-25.9	25	13.1
450	31	6,534	-19.0	-31.8	25	14.4
400	31	7,401	-24.9	-38.2	25	16.1
350	30	8,361	-32.1	-44.1	25	17.9
300	30	9,474	-40.6	-50.7	25	20.0
250	30	10,697	-49.5		26	22.1
200	30	12,128	-58.1		26	25.9
175	30	12,960	-62.1		26	27.1
150	30	13,909	-63.6		26	24.2
125	30	15,025	-64.9		27	19.3
100	30	16,383	-65.8		27	12.0
80	30	17,739	-64.9		28	6.8
70	28	18,556	-63.3		28	3.6
60	30	19,510	-61.0		30	.4
50	30	20,651	-58.0		05	1.0
40	30	22,068	-54.8		09	3.0
30	30	23,919	-52.3		09	3.0
25	30	25,104	-50.7		07	3.0
20	28	26,566	-47.9		08	3.0
15	28	28,484	-44.0		04	1.2
10	26	31,182	-39.4			
7	9	33,641	-34.3			
CHARLESTON, SC — 1014 MB						
SFC	31	13	17.2	14.9	24	.4
1000	30	139	18.6	13.1	23	1.3
950	31	574	17.0	10.0	24	3.8
900	31	1,034	14.4	6.7	23	4.1
850	31	1,515	12.0	2.3	24	4.7
800	31	2,021	9.6	-.7	24	6.6
750	31	2,554	6.6	-3.5	25	7.9
700	31	3,118	3.4	-9.2	25	8.8
650	31	3,715	.2	-12.9	25	9.1
600	31	4,353	-3.1	-17.2	26	10.8
550	31	5,037	-7.5	-21.8	25	11.7
500	31	5,772	-12.2	-27.0	25	12.7
450	31	6,570	-17.6	-31.5	25	14.0
400	31	7,440	-24.1	-38.7	25	14.5
350	31	8,404	-31.2	-43.1	25	17.3
300	30	9,474	-39.7	-47.3	26	19.6
250	30	10,697	-49.5		26	21.8
200	30	12,128	-58.7		26	24.8
175	30	12,960	-62.1		26	27.0
150	30	13,909	-63.6		26	27.7
125	30	15,025	-64.9		27	17.8
100	30	16,383	-65.8		27	12.2
80	30	17,739	-64.9		28	6.8
70	28	18,556	-63.3		28	3.6
60	30	19,510	-61.0		30	.4
50	30	20,651	-58.0		05	1.0
40	30	22,068	-54.8		09	3.0
30	30	23,919	-52.3		09	3.0
25	30	25,104	-50.7		07	3.0
20	28	26,566	-47.9		08	3.0
15	28	28,484	-44.0		04	1.2
10	26	31,182	-39.4			
7	9	33,641	-34.3			
CHATHAM, MA — 1013 MB						
SFC	31	16	11.2	8.3	23	2.9
1000	30	127	11.3	6.1	24	4.4
950	31	551	11.1	3.6	25	6.7
900	31	1,001	8.9	1.3	25	6.8
850	31	1,472	6.0	-1.2	25	7.8
800	31	1,967	3.6	-5.6	25	9.0
750	31	2,489	1.1	-10.3	25	10.3
700	31	3,041	-1.4	-14.3	26	11.6
650	31	3,629	-4.4	-16.7	26	13.1
600	31	4,255	-7.9	-21.9	26	13.6
550	31	4,926	-12.2	-25.4	26	15.0
500	31	5,649	-16.8	-30.5	26	16.8
450	31	6,431	-22.0	-34.3	25	19.3
400	30	7,287	-28.1	-39.8	25	20.9
350	30	8,236	-35.2	-45.0	26	23.8
300	30	9,289	-43.1	-49.5	26	25.6
250	30	10,496	-51.2		26	29.1
200	30	11,925	-56.9		26	27.9
175	30	12,767	-58.6		26	23.5
150	30	13,738	-58.0		26	18.6
125	30	14,886	-58.5		26	15.6
100	30	16,285	-59.6		26	11.2
80	30	17,683	-58.8		26	6.8
70	28	18,520	-57.8		26	4.6
60	28	19,496	-56.4		26	2.4
50	28	20,658	-54.8		23	1.0
40	27	22,087	-53.6		13	1.0
30	25	23,943	-52.1		09	2.6
25	25	25,129	-50.8		08	3.3
20	24	26,588	-48.7		07	3.3
15	23	28,499	-45.3		10	3.8
10	5	31,195	-40.6			
CHIHUAHUA, MEXICO — 857 MB						
SFC	31	1,428	13.9	3.7	29	.6
1000						
950						
900						
850	31	1,494	15.6	2.0	28	.7
800	31	2,009	14.5	.1	30	1.3
750	31	2,551	10.9	-3.1	27	1.4
700	31	3,122	7.2	-7.1	25	3.4
650	31	3,727	2.9	-11.1	24	4.2
600	31	4,369	-2.0	-16.0	24	5.9
550	31	5,055	-7.1	-20.2	25	8.5
500	31	5,791	-11.9	-27.0	26	10.4
450	31	6,589	-17.5	-31.8	26	11.4
400	31	7,460	-24.2	-37.2	26	14.0
350	30	8,422	-31.3	-41.6	26	16.1
300	30	9,492	-39.8	-48.5	26	20.9
250	30	10,715	-48.2		27	25.7
200	30	12,157	-56.9		27	30.5
175	30	12,994	-61.2		27	31.1
150	30	13,942	-64.8		27	25.9
125	30	15,050	-66.9		27	20.5
100	30	16,387	-68.8		27	13.2
80	29	17,722	-67.8		27	5.2
70	29	18,529	-65.9		28	1.9
60	29	19,470	-64.0		04	1.3
50	27	20,594	-61.0		08	2.8
40	22	21,992	-56.7		11	4.7
30	21	23,837	-51.9		09	5.6
25	21	25,023	-50.4		09	5.1
20	21	26,488	-47.7		08	3.8
15	18	28,393	-44.4		06	1.4
10	7	31,131	-39.6			
COLD BAY, AK — 1004 MB						
SFC	28	30	1.1	-.4	25	1.3
1000	14	115	1.0	-.3	20	2.6
950	28	470	-.5	-1.9	21	1.9
900	28	901	-2.7	-4.5	29	1.5
850	28	1,353	-4.6	-8.5	32	2.5
800	28	1,829	-6.9	-12.0	32	3.0
750	28	2,330	-8.9	-15.7	31	3.0
700	28	2,862	-11.8	-21.2	30	3.8
650	28	3,426	-14.9	-24.4	30	4.5
600	28	4,027	-18.5	-28.0	30	5.3
550	28	4,672	-22.4	-33.0	29	6.0
500	28	5,366	-26.8	-37.7	29	6.8
450	28	6,118	-31.9	-41.6	29	8.2
400	28	6,941	-37.7	-45.3	29	8.8
350	28	7,853	-43.4	-46.0	29	12.0
300	28	8,875	-48.6		29	13.2
250	28	10,066	-51.1		28	12.9
200	27	11,523	-50.3		28	11.9
175	27	12,397	-47.6		29	11.1
150	27	13,410	-49.8		28	8.2
125	27	14,599	-49.8		28	6.3
100	27	16,056	-50.4		27	4.9
80	27	17,510	-50.7		27	2.4
70	26	18,379	-50.5		26	1.1
60	24	19,386	-50.3		23	.5
50	22	20,584	-50.3		12	.9
40	21	22,044	-50.4		11	2.4
30	21	23,921	-50.4		10	3.2
25	18	25,115	-49.7		09	4.1
20	17	26,591	-48.5		08	5.2
15	14	28,487	-45.6		09	6.4
10	7	31,308	-40.4			
DAYTON, OH — 980 MB						
SFC	31	299	10.3	6.5	21	.4
1000	1					
950	31	559	11.4	4.6	24	2.4
900	31	1,010	9.3	2.4	27	3.9
850	31	1,482	6.4	-1.8	28	4.9
800	31	1,978	4.1	-5.7	28	6.1
750	31	2,501	1.8	-10.0	28	6.8
700	31	3,055	-1.1	-12.7	28	7.6
650	31	3,643	-4.3	-16.2	28	9.1
600	31	4,271	-7.5	-20.5	28	11.1
550	31	4,943	-11.5	-23.6	28	11.7
500	31	5,668	-16.3	-29.0	27	12.7
450	31	6,449	-21.7	-34.0	28	14.4
400	31	7,306	-28.2	-39.2	27	16.2
350	31	8,252	-35.6	-43.5	27	16.6
300	30	9,303	-43.7	-49.4	26	18.3
250	30	10,508	-51.3		27	20.5
200	30	11,934	-58.0		27	22.6
175	30	12,773	-59.1		27	20.3
150	30	13,742	-58.4		27	17.9
125	30	14,888	-58.6		27	14.1
100	30	16,287	-60.1		27	11.5
80	30	17,680	-59.6		28	6.5
70	28	18,518	-58.7		27	4.3
60	24	19,489	-57.7		27	2.7
50	20	20,646	-55.4		30	.7
40	21	22,076	-53.6		08	1.8
30	21	23,938	-52.0		08	2.8
25	21	25,119	-50.6		08	3.1
20	17	26,577	-48.2		08	3.7
15	14	28,488	-44.6		04	1.6
10	7	31,244	-38.9			
DEL RIO, TX — 976 MB						
SFC	31	314	18.5	15.9	10	2.5
1000						
950	31	547	18.4	14.0	13	4.3
900	31	1,011	17.0	11.2	16	5.0
850	31	1,498	15.7	5.3	20	4.3
800	31	2,011	13.4	1.2	21	3.7
750	31	2,552	10.6	-4.2	25	3.6
700	31	3,123	6.9	-8.4	27	5.0
650	31	3,727	2.7	-11.2	28	6.6
600	31	4,369	-2.3	-14.4	28	8.4
550	31	5,053	-7.6	-19.2	27	9.6
500	31	5,788	-12.3	-26.0	27	11.0
450	31	6,584	-18.0	-30.6	27	12.5
400	31	7,454	-24.3	-37.6	27	14.0
350	31	8,417	-31.3	-44.5	27	16.6
300	31	9,487	-39.8	-51.4	27	21.3
250	31	10,709	-48.9		27	26.1
200	31	12,145	-57.5		27	31.7
175	31	12,981	-61.1		27	31.0
150	31	13,932	-63.7		27	26.3
125	31	15,043	-66.5		27	21.2
100	31	16,387	-67.9		27	14.0
80	31	17,729	-67.6		27	5.7
70	30	18,534	-66.1		28	2.4
60	30	19,475	-63.7		01	1.4
50	29	20,606	-60.3		09	3.0
40	29	22,011	-56.4		09	3.6
30	29	23,855	-52.4		09	4.5
25	29	25,041	-49.7		09	4.1
20	28	26,510	-47.7		09	3.1
15	27	28,420	-44.3		07	1.5
10	16	31,153	-38.9			
DENVER, CO — 838 MB						
SFC	31	1,611	7.7	2.3	20	1.3
1000						
950						
900						
850						
800						
750	31	1,993	9.3	-1.1	28	1.7
700	31	2,525	6.8	-4.7	33	3.3
650	31	3,088	3.0	-8.4	32	4.2
600	31	3,685	-1.0	-11.1	31	5.6
550	31	4,318	-5.7	-15.9	31	6.9
500	31	4,994	-10.5	-20.5	31	6.9
450	30	5,721	-15.7	-27.1	31	6.9
400	30	6,507	-21.3	-33.2	30	6.5
350	30	7,364	-28.0	-39.3	30	6.5
300	30	8,311	-35.5	-45.2	30	7.1
250	29	9,362	-44.0		29	7.7
200	30	10,561	-53.4		29	8.9
175	30	11,973	-60.4		28	11.3
150	30	12,803	-60.7		28	11.0
125	30	13,766	-59.8		28	11.1
100	29	14,905	-60.2		28	9.4
80	29	16,293	-61.4		29	7.2
70	29	17,682	-61.2		29	4.4
60	29	18,514	-60.1		29	3.3
50	28	19,480	-59.9		31	2.0
40	28	20,626	-56.9		03	1.8
30	28	22,047	-54.8		06	2.8
25	27	23,895	-52.5		08	3.7
20	26	25,895	-51.0		08	3.6
15	25	28,069	-48.6		07	3.0
10	20	31,169	-40.0		04	1.1
DODGE CITY, KS — 924 MB						
SFC	31	791	10.5	6.9	27	1.0
1000						
950						
900	31	1,009	11.7	4.0	26	1.4
850	31	1,487	10.3	.5	27	2.8
800	31	1,990	8.4	-2.6	30	3.8
750	31	2,521	5.4	-6.6	31	4.7
700	31	3,081	1.9	-7.9	32	5.0
650	31	3,676	-1.8	-11.3	31	6.4
600	31	4,308	-5.7	-15.7	31	6.3
550	31	4,985	-10.1	-20.8	31	7.7
500	31	5,713	-15.1	-27.5	31	8.5
450	31	6,501	-20.8	-33.3	31	8.2
400	31	7,359	-27.0	-39.4	31	8.9
350	31	8,308	-34.8	-44.8	31	9.1
300	31	9,363	-43.3		31	8.9
250	29	10,566	-52.2		29	9.9
200	29	11,984	-59.5		28	12.9
175	29	12,818	-59.9		28	12.1
150	29	13,782	-59.8		28	12.6
125	29	14,921	-60.5		28	11.9
100	29	16,307	-61.8		28	9.2
80	29	17,686	-61.9		28	6.7
70	29	18,513	-61.5		29	4.9
60	29	19,472	-60.4		32	2.4
50	28	20,615	-57.4		36	1.1
40	26	22,037	-54.8		05	1.8
30	26	23,887	-52.5		09	3.3
25	26	25,069	-51.2		09	2.8
20	25	26,526	-49.2		05	1.5
15	26	28,431	-45.9		06	1.8
10	16	31,151	-40.9		35	1.5
EL PASO, TX — 881 MB						
SFC	31	1,193	15.0	.8	15	.2
1000						
950						
900						
850	31	1,495	16.2	-.3	17	.2
800	31	2,007	13.4	-1.3	25	1.2
750	31	2,547	9.5	-5.8	26	2.6
700	31	3,114	5.1	-8.4	28	3.9
650	31	3,715	.9	-13.0	27	4.2
600	31	4,353	-3.8	-16.7	26	5.7
550	31	5,034	-8.8	-21.9	26	6.6
500	31	5,765	-13.9	-27.9	25	8.3
450	31	6,557	-19.4	-33.7	27	9.0
400	31	7,421	-25.8	-40.0	27	11.5
350	31	8,377	-33.1	-45.5	27	13.5
300	31	9,439	-41.6	-50.8	27	16.7
250	31	10,652	-50.3		27	20.4
200	30	12,081	-58.0		27	25.1
175	30	12,918	-60.8		27	24.8
150	30	13,874	-62.0		27	21.2
125	29	14,999	-64.2		27	16.2
100	28	16,362	-65.9		27	11.5
80	28	17,716	-65.5		26	8.8
70	28	18,532	-64.2		29	1.6
60	24	19,483	-62.5		05	1.0
50	23	20,620	-59.2		09	2.7
40	23	22,029	-55.9		09	3.4
30	23	23,870	-52.4		08	4.4
25	23	25,053	-50.3		08	3.4
20	19	26,518	-47.8		07	2.6
15	16	28,419	-44.4		33	.4
10	7	31,143	-40.7			
ELY, NV — 809 MB						
SFC	30	1,908	4.7	-2.8	20	2.9
1000						
950						
900						
850						
800	30	1,994	8.0	-2.2	19	2.7
750	30	2,530	8.7	-5.8	20	2.0
700	30	3,097	4.9	-9.3	25	3.0
650	30	3,697	.5	-12.2	26	3.7
600	30	4,333	-4.5	-15.1	25	4.0
550	30	5,011	-9.7	-20.2	25	4.9
500	30	5,739	-15.0	-26.4	26	5.9
450	30	6,527	-20.8	-32.6	26	6.3
400	30	7,386	-27.6	-38.0	27	6.2
350	30	8,333	-35.1	-44.9	27	7.5
300	30	9,387	-44.0		26	7.7
250	30	10,586	-53.5		27	8.9
200	29	11,998	-61.0		27	12.0
175	29	12,828	-60.2		27	12.8
150	29	13,793	-59.6		27	10.4
125	29	14,929	-61.1		27	9.3
100	28	16,431	-60.7		27	6.9
80	29	17,692	-61.9		27	3.7
70	28	18,532	-60.7		28	1.8
60	26	19,482	-60.1		31	.8
50	25	20,625	-58.0		06	1.6
40	24	22,043	-55.7		09	2.6
30	24	23,886	-53.4		08	2.8
25	24	25,063	-51.8		06	3.1
20	23	26,530	-48.3		07	3.9
15	24	28,435	-45.2		08	2.4
10	8	31,158	-39.9			
EMPALME, MEXICO — 1010 MB						
SFC	31	12	18.7	10.6	35	.8
1000	31	97	22.0	11.7	36	.6
950	31	543	22.4	6.1	01	.2
900	31	1,012	20.7	1.7	30	.3
850	31	1,502	17.6	-1.4	23	1.4
800	31	2,018	14.5	-5.1	22	3.0
750	31	2,559	10.9	-7.9	22	4.3
700	31	3,130	7.1	-11.5	23	4.9
650	31	3,735	3.3	-13.6	23	6.9
600	31	4,379	-1.2	-17.7	23	7.3
550	31	5,066	-5.5	-22.5	24	8.1
500	31	5,807	-10.8	-26.4	25	9.6
450	30	6,608	-16.6	-31.5	25	11.0
400	30	7,482	-23.3	-36.2	26	12.9
350	30	8,447	-30.8	-42.2	26	15.8
300	30	9,520	-39.2	-48.8	26	19.5
250	30	10,746	-47.8		26	26.2
200	30	12,187	-56.7		26	31.4
175	30	13,026	-60.6		26	30.8
150	30	13,978	-64.0		26	25.9
125	30	15,089	-66.4		26	19.2
100	28	16,431	-68.7		27	13.1
80	28	17,772	-67.6		28	6.3
70	26	18,582	-65.4		30	1.7
60	26	19,523	-63.8		05	1.2
50	24	20,646	-60.7		08	2.5
40	24	22,052	-55.9		09	4.1
30	23	23,898	-52.1		09	5.3
25	23	25,083	-50.1		09	5.5
20	21	26,551	-47.0		08	4.7
15	18	28,480	-43.2		07	3.4
FAIRBANKS, AK — 990 MB						
SFC	30	135	5.3	.1	35	1.1
1000						
950						
900	30	469	5.7	-1.2	28	1.1
850	30	909	3.2	-3.2	22	.8
800	30	1,370	-.1	-5.5	19	1.4
750	30	1,853	-3.7	-7.7	18	2.0
700	30	2,359	-7.4	-10.9	17	2.3
650	30	2,892	-11.5	-15.3	17	2.8
600	30	3,457	-14.9	-21.6	16	2.3
550	30	4,058	-18.9	-25.5	15	2.4
500	30	4,701	-23.3	-30.9	16	3.3
450	30	5,391	-28.5	-35.8	15	3.4
400	30	6,138	-34.1	-40.9	13	3.8
350	30	6,951	-40.6	-44.9	14	4.5
300	30	7,850	-47.2		14	3.8
250	30	8,853	-52.9		14	3.9
200	30	10,029	-51.9		16	3.6
175	30	11,469	-48.0		17	3.4
150	30	12,372	-47.7		17	3.5
125	30	13,391	-47.5		16	3.4
100	29	14,595	-47.8		16	3.2
80	29	16,006	-48.1		16	3.1
70	29	17,537	-48.2		14	3.1
60	29	18,417	-48.3		14	2.9
50	28	19,435	-48.6		13	2.6
40	28	20,634	-48.7		11	3.5
30	28	22,095	-48.6		11	3.9
25	28	23,985	-48.1		10	5.5
20	28	25,952	-47.4		10	6.5
15	26	28,061	-46.2		10	8.5
10	5	31,415	-38.2			
FLINT, MI — 986 MB						
SFC	31	236	9.2	6.3	25	.9
1000						
950						
900	31	544	9.0	3.3	27	2.8
850	31	991	7.0	.7	29	4.7
800	31	1,459	4.5	-2.2	30	5.8
750	31	1,951	2.1	-7.1	30	6.6
700	31	2,470	-.3	-11.2	29	7.4
650	31	3,019	-3.5	-15.2	29	8.3
600	30	3,601

RAWINSONDE DATA

Average monthly values

GLASGOW, MT
933 MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	30	496	8.0	-.9	15	8.9
1000						
975						
950						
900	30	996	12.0	-4.9	17	6.8
850	30	1,494	10.4	-3.3	24	6.9
800	30	1,976	7.0	-6.4	27	6.5
750	30	2,453	3.4	-7.5	28	3.3
700	30	2,939	-.2	-10.3	29	4.5
650	30	3,448	-3.7	-10.2	29	5.3
600	30	3,970	-7.4	-20.7	28	6.1
550	30	4,549	-11.8	-25.3	28	8.4
500	30	5,671	-16.9	-34.8	28	9.3
450	30	6,453	-21.6	-34.8	28	10.3
400	30	7,3[illegible]	-29.1	-34.7	29	9.9
350	30	8,2[illegible]	-36.4	-45.0	27	11.5
300	30	9,2[illegible]	-44.7		27	12.4
250	30	10,493	-53.8		27	11.9
200	30	11,903	-62.0		27	12.6
175	30	12,737	-58.9		28	11.6
150	30	13,709	-57.2		28	9.8
125	29	14,862	-57.3		28	8.6
100	29	16,273	-57.5		29	6.7
80	27	17,260	-57.7		30	4.0
70	29	18,526	-58.1		31	2.4
60	29	19,510	-54.8		35	.7
50	29	20,758	-53.6		06	1.2
40	28	22,218	-52.6		08	3.2
30	27	23,983	-51.2		09	5.1
25	27	25,172	-50.1		09	5.8
20	24	26,634	-48.2		09	6.7
15	22	28,556	-44.9		09	8.5
10	18	31,287	-40.0		08	8.9

GRAND JUNCTION, CO
865 MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	31	1,447	13.	.4	11	6.2
1000						
975						
950						
900						
850	31	1,507	10.9	.7	12	6.6
800	31	1,976	7.0	-5.4	27	6.5
750	31	2,453	3.4	-7.5	28	3.3
700	31	2,939	-.2	-10.3	29	4.5
650	31	3,448	-3.7	-10.2	29	5.3
600	31	3,970	-7.4	-20.7	28	6.1
550	31	4,549	-11.8	-25.3	28	8.4
500	31	5,671	-16.9	-34.8	28	9.3
450	31	6,453	-21.6	-34.8	28	10.3
400	31	7,3[illegible]	-29.1	-34.7	29	9.9
350	31	8,2[illegible]	-36.4	-45.0	27	11.5
300	31	9,2[illegible]	-44.7		27	12.4
250	31	10,493	-53.8		27	11.9
200	31	11,903	-62.0		27	12.6
175	31	12,737	-58.9		28	11.6
150	31	13,709	-57.2		28	9.8
125	31	14,862	-57.3		28	8.6
100	31	16,273	-57.5		29	6.7
80	31	17,260	-57.7		30	4.0
70	31	18,526	-58.1		31	2.4
60	31	19,510	-54.8		35	.7
50	31	20,758	-53.6		06	1.2
40	31	22,218	-52.6		08	3.2
30	31	23,983	-51.2		09	5.1
25	31	25,172	-50.1		09	5.8
20	31	26,634	-48.2		09	6.7
15	31	28,556	-44.9		09	8.5
10	31	31,287	-40.0		08	8.9

* GREAT FALLS, MT
867 MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	31	1,418	8.3	2.8	14	7.3
1000						
975						
950						
900						
850	31	1,473	10.3	-1.[illegible]	24	4.8
800	31	1,975	7.[illegible]	-3.[illegible]	25	4.3
750	31	2,[illegible]	3.7	-6.8	25	3.9
700	31	3,060	.2	-11.2	25	4.4
650	31	3,649	-3.8	-14.1	25	4.4
600	31	4,277	-8.1	-18.5	24	5.7
550	31	4,946	-12.6	-23.7	24	6.1
500	31	5,668	-17.2	-29.4	24	8.8
450	31	6,447	-23.1	-34.8	24	9.6
400	31	7,300	-29.8	-40.9	24	10.7
350	31	8,[illegible]	-37.[illegible]	-45.8	24	11.1
300	31	9,284	-45.6		24	12.1
250	31	10,475	-54.7		25	13.8
200	31	11,880	-60.2		25	13.[illegible]
175	31	12,715	-59.		25	13.[illegible]
150	31	13,685	-57.[illegible]		27	12.8
125	31	14,835	-57.9		26	9.2
100	31	16,241	-58.7		27	6.6
80	31	17,643	-58.3		28	3.9
70	31	18,486	-55.[illegible]		29	3.5
60	31	19,[illegible]	-[illegible]		32	1.[illegible]
50	31	20,628	-54.[illegible]		05	.9
40	31	22,062	-53.[illegible]		07	2.4
30	31	23,924	-52.[illegible]		08	4.5
25	31	25,107	-4[illegible]		09	5.3
20	31	26,545	-44.[illegible]		08	6.8
15	31	28,456	-45.3		08	7.8
10	31	31,212	-39.4			

GREEN BAY, WI
972 MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	31	1,[illegible]	8.3	-.[illegible]	32	[illegible]
1000	31	991	6.5	-2.8	33	6.1
950	31	1,458	3.9	-5.1	33	[illegible]
900	31	1,949	1.5	-8.9	33	5.3
850	31	2,467	-.9	-13.5	31	5.7
800	31	3,015	-3.6	-18.6	31	6.3
750	31	[illegible]	-6.8	-20.7	31	[illegible]
700	31	4,217	-10.4	-25.2	31	[illegible]
650	31	4,882	-14.6	-28.1	31	4,998
600	31	5,597	-19.3	-32.0	31	[illegible]
550	31	6,[illegible]	-24.3	-37.[illegible]	31	6,521
500	31	7,380	-30.7	-42.7	31	7,386
450	31	8,[illegible]	-37.[illegible]	-45.[illegible]	31	8,[illegible]
400	31	9,199	-45.3		31	9,405
350	31	[illegible]	-52.6		31	10,619
300	31	11,821	-56.8		31	12,047
250	31	[illegible]	-56.0		31	12,880
200	31	[illegible]	-55.7		31	[illegible]
175	31	[illegible]	-56.1		31	14,968
150	31	16,231	-58.0		31	16,344
125	31	17,638	-57.5		31	17,717
100	31	[illegible]	-56.7		31	18,543
80	31	[illegible]	-55.8		31	19,503
70	31	[illegible]	-54.3		31	20,653
60	31	[illegible]	-53.2		31	22,074
50	31	[illegible]	-51.5		31	[illegible]
40	31	[illegible]	-50.2		31	[illegible]
30	31	25,114	-50.2		31	25,111
25	31	26,582	-48.5		31	26,575
20	31	28,481	-45.8		31	28,484
15	31	[illegible]	[illegible]		31	[illegible]
10	31	31,198	-39.9		31	31,241

[illegible]
[illegible] MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1000	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	31	[illegible]	14.7	[illegible]	[illegible]	[illegible]
900	31	[illegible]	12.6	[illegible]	[illegible]	[illegible]
850	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
800	31	2,007	[illegible]	[illegible]	[illegible]	[illegible]
750	31	2,536	[illegible]	[illegible]	[illegible]	[illegible]
700	31	[illegible]	1.3	[illegible]	[illegible]	[illegible]
650	31	[illegible]	-6.8	-20.7	[illegible]	-1.8
600	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550	31	[illegible]	-5.5	[illegible]	[illegible]	[illegible]
500	31	5,729	-13.9	[illegible]	[illegible]	[illegible]
450	31	6,521	-19.4	[illegible]	[illegible]	[illegible]
400	31	7,386	[illegible]	[illegible]	[illegible]	[illegible]
350	31	[illegible]	-33.0	[illegible]	[illegible]	[illegible]
300	31	9,405	-41.3	[illegible]	[illegible]	[illegible]
250	31	10,619	-50.5	[illegible]	[illegible]	[illegible]
200	31	12,047	-58.6	[illegible]	[illegible]	[illegible]
175	31	12,880	[illegible]	[illegible]	[illegible]	[illegible]
150	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
125	31	14,968	-62.1	[illegible]	[illegible]	[illegible]
100	31	16,344	-63.0	[illegible]	[illegible]	[illegible]
80	31	17,717	-62.9	[illegible]	[illegible]	[illegible]
70	31	18,543	-61.1	[illegible]	[illegible]	[illegible]
60	31	19,503	[illegible]	[illegible]	[illegible]	[illegible]
50	31	20,653	-58.0	[illegible]	[illegible]	[illegible]
40	31	22,074	-54.7	[illegible]	[illegible]	[illegible]
30	31	[illegible]	-52.4	[illegible]	[illegible]	[illegible]
25	31	25,111	-50.6	[illegible]	[illegible]	[illegible]
20	26	26,575	-48.8	[illegible]	[illegible]	[illegible]
15	2	28,484	-45.8	[illegible]	[illegible]	[illegible]
10	2	31,241	-38.7	[illegible]	[illegible]	[illegible]

* GUAM, MARIANA IS.
998 MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	30	111	25.1	23.4	09	2.9
1000	5	113	25.0	23.0		
950	30	541	23.0	20.7	09	6.7
900	30	[illegible]	20.3	17.0	09	6.9
850	30	1,505	17.7	13.2	09	5.9
800	30	2,023	15.4	9.7	09	5.7
750	30	2,569	12.8	5.3	10	5.8
700	30	3,146	10.0	-.2	09	5.7
650	30	3,759	6.6	-4.8	08	5.7
600	30	4,412	2.8	-10.0	08	5.4
550	30	5,111	-1.3	-16.8	08	4.6
500	30	5,865	-5.7	-19.4	09	3.1
450	30	6,684	-10.1	-26.1	09	2.8
400	30	7,582	-15.7	-30.8	05	1.8
350	30	8,578	-22.7	-35.9	35	.7
300	30	9,688	-31.1	-43.3	27	1.2
250	30	10,954	-41.0	-49.7	24	3.0
200	30	12,432	-53.2		21	1.3
175	30	13,218	-60.1		20	.5
150	30	14,223	-67.8		05	1.7
125	30	15,298	-75.5		05	4.2
100	29	16,569	-8.[illegible]		07	8.2
80	29	17,822	-8[illegible].5		08	8.5
70	29	18,585	-75.9		08	6.2
60	29	19,492	-69.0		07	4.1
50	29	20,596	-6[illegible].0		10	3.8
40	29	21,976	-59.5		08	4.2
30	29	23,803	-53.5		08	7.9
25	29	24,987	-51.5		09	10.4
20	29	26,445	-48.7		08	16.0
15	27	28,347	-45.4		08	21.4
10	*	31,076	-41.0			
7						

HILO, HI
1019 MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	31	10	20.2	18.7	14	1.7
1000	31	167	19.7	[illegible]	13	.7
950	31	608	18.6	14.5	09	3.[illegible]
900	31	1,067	13.[illegible]	[illegible]	[illegible]	[illegible]
850	31	1,547	10.6	8.7	08	3.8
800	31	2,051	8.7	1.7	07	2.9
750	31	2,585	7.7	-4.7	07	2.2
700	31	3,152	6.1	-[illegible].6	07	2.[illegible]
650	31	3,756	3.1	-15.9	25	.6
600	31	4,399	-1.1	-18.3	25	2.4
550	31	5,087	-5.6	-21.9	26	4.3
500	31	5,828	-10.4	-[illegible].5	26	5.9
450	31	6,631	-15.6	-[illegible].[illegible]	27	8.2
400	31	7,510	-21.6	-35.[illegible]	27	9.8
350	31	8,483	-28.7	-[illegible].[illegible]	27	12.0
300	31	9,564	-37.[illegible]	-[illegible].[illegible]	27	15.1
250	31	10,796	-47.4		28	19.2
200	31	12,238	-57.7		28	24.5
175	31	13,070	-63.[illegible]		28	26.0
150	31	14,006	-68.[illegible]		28	25.2
125	31	15,092	-71.4		28	20.7
100	31	16,403	-73.4		28	12.[illegible]
80	31	17,714	-70.8		27	3.8
70	31	18,513	-67.0		10	.3
60	31	19,448	-65.0		09	3.4
50	31	20,567	-62.4		09	5.1
40	31	21,958	-58.5		08	5.9
30	31	23,788	-53.4		09	8.8
25	31	24,969	-50.4		09	10.6
20	31	26,429	-47.4		09	[illegible].3
15	31	28,340	-44.9		09	[illegible].3
10	31	31,115	-38.3			

HUNTINGTON, WV
985 MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	31	246	11.[illegible]	7.7	23	.1
1000	31	559	12.4	5.6	27	3.5
950	31	1,012	10.5	4.[illegible]	28	5.4
900	31	1,486	7.6	-.7	28	6.4
850	30	1,983	5.2	-3.[illegible]	29	7.9
800	30	2,508	2.6	-8.[illegible]	28	8.7
750	30	3,063	-.5	-[illegible].9	28	10.2
700	30	3,653	-3.2	-14.7	28	12.0
650	30	4,283	-6.5	-18.0	28	13.9
600	30	4,959	-10.3	-22.3	28	15.2
550	30	5,686	-15.3	-27.8	28	16.5
500	30	6,474	-20.7	-33.[illegible]	28	17.0
450	30	7,334	-27.[illegible]	-39.[illegible]	28	18.1
400	30	8,284	-34.5	-[illegible].[illegible]	27	19.3
350	30	9,341	-42.3	-45.6	27	20.6
300	30	10,551	-50.7		26	24.1
250	30	11,982	-57.2		27	27.7
200	30	12,825	-59.2		27	27.6
175	30	13,792	-58.8		27	27.3
150	30	14,937	-59.3		27	27.7
125	30	16,330	-60.[illegible]		27	27.[illegible]
100	30	17,719	-60.5		27	27.8
80	30	18,551	-59.4		27	26.5
70	30	19,519	-57.9		26	24.0
60	30	20,675	-55.4		25	21.1
50	30	22,105	-53.1		14	.7
40	30	23,955	-52.[illegible]		04	.9
30	30	25,147	-50.[illegible]		08	1.6
25	28	26,610	-48.[illegible]		07	1.2
20	27	28,525	-44.8			
15	26	[illegible]	-44.[illegible]		09	9.0
10	21	31,337	-37.6		09	9.[illegible]
7	10	33,874	-31.8			

* INTERNATIONAL FALLS, MN
973 MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	31	359	4.1	[illegible]	32	[illegible]
1000	31	552	7.6	-2.[illegible]	33	.6
950	31	997	4.1	-4.6	31	2.7
900	31	[illegible]	3.6	-7.[illegible]	32	3.7
850	31	1,953	1.3	-11.[illegible]	32	4.7
800	31	[illegible]	-1.2	-14.9	32	5.2
750	31	[illegible]	-4.0	-19.[illegible]	32	5.7
700	31	[illegible]	-8.[illegible]	-22.[illegible]	32	6.[illegible]
650	31	[illegible]	-10.9	-24.[illegible]	31	7.5
600	31	[illegible]	-14.8	-29.8	31	8.3
550	31	[illegible]	-19.6	-34.[illegible]	31	[illegible]
500	31	[illegible]	-24.7	-37.[illegible]	31	[illegible]
450	31	[illegible]	-31.0	-[illegible].8	31	13.8
400	31	[illegible]	-38.[illegible]	-[illegible].[illegible]	31	14.3
350	31	[illegible]	-45.7		31	15.3
300	31	[illegible]	-52.8		31	[illegible]
250	31	[illegible]	-55.7		30	[illegible]
200	31	[illegible]	-55.[illegible]		30	15.[illegible]
175	30	[illegible]	-54.8		30	16.6
150	30	[illegible]	-55.[illegible]		30	16.[illegible]
125	30	[illegible]	-55.9		32	16.[illegible]
100	30	[illegible]	-55.[illegible]		35	2.5
80	30	[illegible]	-53.9		05	[illegible]
70	30	[illegible]	-52.[illegible]		07	[illegible]
60	30	[illegible]	-51.9		08	3.5
50	30	[illegible]	-50.9		08	4.[illegible]
40	30	[illegible]	-49.5		08	6.[illegible]
30	30	[illegible]	-47.4		09	7.6
25	28	[illegible]	-47.[illegible]		09	9.0
20	26	[illegible]	-44.2		09	[illegible]
15	21	[illegible]	-42.[illegible]		[illegible]	[illegible]
10	6	31,195	-38.6			

[illegible]
[illegible] MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1000	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	31	[illegible]	26.3	[illegible]	[illegible]	[illegible]
900	31	111	25.8	[illegible]	[illegible]	[illegible]
850	31	562	22.[illegible]	[illegible]	[illegible]	[illegible]
800	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
750	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
700	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
650	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
600	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
350	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
200	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
175	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
150	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
125	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
80	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

JACKSON, MS
1003 MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	31	100	14.5	13.7	17	.7
1000	22	143	15.0	11.9	12	.6
950	31	561	15.9	9.5	24	1.6
900	31	1,019	13.5	6.7	27	3.6
850	31	[illegible]	11.3	2.5	26	4.9
800	31	2,[illegible]	8.9	-1.8	26	5.8
750	31	2,536	6.2	-6.0	26	7.3
700	31	3,098	3.0	-9.6	26	8.5
650	31	3,695	-.5	-12.8	26	9.1
600	31	4,330	-4.5	-16.9	26	9.4
550	31	5,010	-9.0	-21.0	26	9.7
500	31	5,741	-13.8	-26.6	26	10.8
450	31	6,534	-18.9	-31.5	26	12.9
400	31	7,400	-25.0	-37.7	26	15.3
350	31	8,360	-32.0	-44.0	26	17.2
300	31	9,428	-40.2	-48.8	26	20.2
250	31	10,647	-49.5		26	24.3
200	31	12,081	-57.7		26	27.0
175	31	12,918	-60.5		26	28.4
150	31	13,875	-61.9		27	24.3
125	30	15,001	-63.4		26	18.5
100	30	16,364	-65.4		27	12.9
80	28	17,724	-65.1		27	7.1
70	28	18,541	-63.4		29	3.9
60	28	19,492	-61.6		35	.6
50	27	20,636	-58.2		08	1.5
40	27	22,050	-55.5		08	3.2
30	24	23,903	-52.1		08	4.5
25	24	25,088	-51.4		09	3.7
20	22	26,553	-47.6		08	2.1
15	18	28,457	-45.0		04	1.8
10	7	31,162	-43.5			
7						

JOHN F. KENNEDY INT. AP NY
1014 MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	30	5	12.5	6.9	24	1.9
1000	30	131	12.5	6.8	15	2.8
950	30	557	11.4	5.3	10	4.7
900	30	1,007	9.[illegible]	[illegible]	[illegible]	5.7
850	30	1,478	6.2	-1.5	17	6.5
800	30	1,973	3.4	-6.0	17	7.7
750	30	2,495	1.3	-10.6	17	9.1
700	30	3,047	-1.5	-14.7	17	10.5
650	30	3,635	-4.2	-18.4	16	12.6
600	30	4,262	-7.7	-22.6	16	13.7
550	30	4,933	-11.8	-27.8	16	14.6
500	30	5,657	-16.4	-30.1	16	16.3
450	30	6,440	-21.8	-35.3	16	18.6
400	30	7,297	-28.1	-39.1	16	21.[illegible]
350	30	8,246	-35.2	-44.7	16	24.2
300	30	9,298	-43.2	-47.9	16	27.[illegible]
250	30	10,506	-51.4		16	27.[illegible]
200	30	11,933	-57.7		16	26.9
175	30	12,774	-58.6		17	24.[illegible]
150	30	13,743	-58.[illegible]		16	19.[illegible]
125	29	14,888	-59.0		16	13.9
100	29	16,284	-60.0		17	[illegible].[illegible]
80	28	17,678	-59.5		17	7.5
70	28	18,517	-58.1		17	5.[illegible]
60	28	19,490	-56.9		17	2.6
50	27	20,648	-55.1		18	.3
40	27	22,075	-53.8		11	1.7
30	24	23,926	-52.3		09	3.5
25	24	25,105	-51.4		08	3.8
20	24	26,568	-48.5		08	3.8
15	23	28,458	-45.8		08	4.3
10	21	31,216	-41.3		09	[illegible].2
7	13	33,551	-37.7			

JOHNSTON IS., PACIFIC AREA
1016 MB

Standard pressure surface	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point °C	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts.)
SFC	31	3	24.6	21.0	09	7.6
1000	31	139	23.2	19.9	09	8.2
950	31	585	19.5	17.7	09	9.3
900	31	[illegible]	16.5	13.6	09	9.7
850	31	[illegible]	13.4	10.7	09	9.3
800	31	2,046	12.3	1.8	09	9.3
750	31	2,585	10.3	-5.[illegible]	09	9.6
700	31	3,166	7.9	-11.[illegible]	08	9.4
650	31	3,785	5.2	-14.4	06	9.5
600	31	[illegible]	2.0	-16.9	06	9.3
550	31	5,111	-2.[illegible]	-19.4	03	9.1
500	31	5,884	-7.0	-23.5	35	9.7
450	31	6,674	-12.7	-27.[illegible]	31	9.8
400	31	7,562	-19.[illegible]	-32.0	09	9.9
350	31	8,545	-26.3	-

RAWINSONDE DATA

Average monthly values

NORDR, CAROLINE IS. — 1007 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	30	28.5	24.7	31	1.2
1000	31	87	27.2	23.6	30	1.4
950	31	540	23.7	21.0	27	2.7
900	31	1,012	20.8	17.0	28	3.9
850	31	1,506	17.9	12.2	29	4.5
800	31	2,014	15.5	9.1	29	4.2
750	31	2,570	13.0	6.1	29	3.6
700	31	3,148	9.9	2.1	28	3.5
650	31	3,761	6.5	-1.2	30	3.0
600	31	4,414	2.8	-5.0	29	2.5
550	31	5,113	-1.1	-9.9	27	1.4
500	31	5,868	-5.1	-14.1	32	.3
450	31	6,690	-9.7	-21.6	29	.3
400	31	7,589	-15.5	-28.0	17	1.1
350	30	8,585	-22.2	-34.6	18	1.4
300	30	9,697	-30.5	-42.1	19	2.1
250	30	10,967	-40.5	-51.1	17	1.5
200	29	12,449	-52.5		06	2.4
175	29	13,299	-59.2		04	3.2
150	29	14,248	-67.0		04	4.9
125	28	15,330	-74.7		06	7.7
100	28	16,636	-80.0		07	8.1
80	27	17,872	-78.1		07	4.0
70	27	18,645	-72.9		28	2.2
60	26	19,563	-67.5		28	6.6
50	26	20,676	-62.4		28	6.7
40	25	22,062	-59.3		28	3.8
30	23	23,886	-53.9		10	5.1
25	23	25,065	-51.3		10	11.2
20	22	26,523	-47.7		10	18.6
15	18	28,445	-43.4		10	23.2
10	6	31,238	-36.3			

KOTZEBUE, AK — 1009 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	5	-2.3	-4.3	30	2.3
1000	27	80	-1.8	-4.7	30	2.2
950	29	484	-.5	-6.0	31	.7
900	29	915	-2.0	-7.9	23	1.0
850	29	1,368	-4.3	-10.0	20	1.9
800	29	1,844	-6.0	-13.1	19	2.0
750	29	2,347	-8.7	-16.0	18	2.2
700	29	2,879	-11.9	-19.5	17	2.4
650	29	3,442	-15.4	-22.9	18	3.0
600	29	4,043	-19.1	-27.2	18	3.2
550	29	4,684	-23.5	-31.4	18	2.8
500	29	5,374	-28.6	-34.9	18	2.9
450	29	6,121	-33.8	-40.2	17	3.1
400	29	6,936	-40.0	-43.3	17	3.2
350	29	7,838	-46.6		16	3.4
300	29	8,844	-52.6		16	2.7
250	29	10,019	-52.1		15	1.8
200	29	11,476	-48.7		15	1.4
175	29	12,356	-47.9		15	1.9
150	29	13,374	-47.7		15	1.8
125	28	14,578	-47.8		14	2.2
100	28	16,056	-47.8		13	2.8
80	27	17,526	-47.8		12	2.5
70	27	18,408	-47.6		12	3.1
60	26	19,423	-47.8		12	3.0
50	25	20,626	-47.8		10	3.5
40	25	22,093	-47.8		10	5.0
30	23	23,992	-48.0		09	6.3
25	23	25,189	-47.4		09	7.7
20	22	26,674	-46.0		09	8.9
15	18	28,586	-43.4		10	9.5
10						

KWAJALEIN, MARSHALL IS. — 1009 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC						
1000						
950						
900						
850						
800						
750						
700						
650						
600						
550						
500						
450						
400						
350						
300						
250						
200						
175						
150						
125						
100						
80						
70						
60						
50						
40						
30						
25						
20						
15						
10						

LAKE CHARLES, LA — 1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	5	17.6	16.2	09	.5
1000	31	120	19.5	16.1	14	.7
950	31	561	17.7	11.9	21	1.9
900	31	1,022	15.4	7.9	22	2.6
850	31	1,505	13.5	.8	24	3.9
800	31	2,014	11.5	-4.3	26	4.9
750	31	2,550	8.2	-7.7	27	5.7
700	31	3,116	4.5	-10.5	27	7.3
650	31	3,715	.8	-14.5	27	9.1
600	31	4,353	-3.4	-18.7	27	10.0
550	31	5,035	-7.9	-23.0	27	11.1
500	31	5,770	-12.6	-28.3	27	12.2
450	31	6,566	-18.1	-33.3	27	13.1
400	31	7,435	-24.5	-39.0	27	15.8
350	31	8,396	-31.5	-44.5	27	17.9
300	31	9,466	-39.3	-50.0	27	19.6
250	31	10,690	-48.8		27	23.3
200	31	12,127	-57.4		27	27.9
175	31	12,964	-60.7		27	28.8
150	31	13,918	-62.8		27	26.9
125	31	15,037	-64.8		27	19.6
100	31	16,389	-67.2		27	13.6
80	31	17,736	-66.9		27	6.7
70	31	18,547	-65.0		29	3.4
60	30	19,494	-62.4		05	1.1
50	30	20,628	-59.2		10	1.9
40	30	22,039	-55.7		08	3.5
30	26	23,885	-52.6		09	5.6
25	25	25,069	-50.2		08	5.2
20	24	26,537	-47.4		08	3.3
15	23	28,457	-44.0		06	1.6
10	13	31,229	-38.1		31	2.0

LANDER, WY — 830 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	1,697	7.1	.1	26	1.5
1000						
950						
900						
850						
800	31	1,994	8.7	-2.2	31	1.6
750	31	2,525	5.6	-4.8	32	2.2
700	31	3,080	2.0	-8.1	29	3.1
650	31	3,680	-2.2	-11.1	28	3.9
600	31	4,311	-6.1	-15.4	28	5.5
550	31	4,980	-11.0	-20.4	28	6.4
500	31	5,711	-16.2	-26.4	28	6.5
450	31	6,496	-21.8	-31.7	27	6.8
400	31	7,352	-28.4	-38.7	27	7.8
350	31	8,298	-35.9	-45.3	27	8.5
300	31	9,340	-44.6		27	9.2
250	31	10,541	-54.1		27	9.9
200	30	11,947	-61.1		27	11.6
175	30	12,778	-60.3		28	10.6
150	29	13,742	-59.3		29	10.0
125	28	14,884	-59.6		28	8.5
100	27	16,278	-60.3		27	6.3
80	27	17,668	-60.1		28	4.1
70	27	18,504	-58.8		27	2.8
60	26	19,476	-58.0		30	1.5
50	26	20,629	-56.2		02	1.0
40	25	22,052	-54.3		08	2.6
30	23	23,903	-52.6		08	4.0
25	23	25,091	-51.2		08	4.8
20	22	26,545	-49.5		08	4.5
15	18	28,439	-46.6		07	5.2
10	6	31,157	-40.4			

LIHUE KAUAI, HI — 1016 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	36	22.3	18.6	06	5.8
1000	31	175	21.4	17.2	07	6.8
950	31	618	17.5	15.2	07	8.4
900	31	1,078	14.0	11.2	08	8.4
850	31	1,558	11.0	7.5	08	8.2
800	31	2,064	9.8	-1.8	08	7.8
750	31	2,599	8.5	-8.8	08	5.9
700	31	3,166	6.0	-13.4	08	3.4
650	31	3,769	2.6	-18.4	07	2.2
600	31	4,412	-1.0	-21.2	06	1.9
550	31	5,111	-5.3	-24.4	02	2.0
500	31	5,841	-10.3	-28.6	35	2.4
450	31	6,645	-15.6	-33.1	32	4.2
400	31	7,523	-22.0	-37.7	31	6.6
350	31	8,494	-29.2	-43.4	31	9.4
300	31	9,574	-37.7	-49.9	30	11.9
250	31	10,805	-47.4		29	15.1
200	31	12,247	-57.7		29	19.1
175	31	13,079	-62.9		29	21.1
150	31	14,018	-67.2		29	20.6
125	31	15,109	-70.4		29	17.2
100	31	16,429	-71.7		29	10.2
80	31	17,746	-70.3		29	2.9
70	31	18,547	-66.5		22	.1
60	31	19,487	-64.3		09	2.6
50	31	20,609	-61.8		09	5.5
40	30	22,001	-58.2		09	6.7
30	29	23,833	-53.5		09	7.9
25	27	25,016	-50.6		09	9.1
20	26	26,483	-47.3		09	10.2
15	25	28,398	-44.7		09	11.4
10	21	31,140	-39.8		08	13.2
7						

LITTLE ROCK, AR — 995 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	79	13.9	10.2	05	.2
1000	7	195	11.3	3.6		
950	31	364	14.6	7.4	31	.5
900	31	1,020	12.1	4.8	27	1.4
850	31	1,697	10.1	.2	26	3.1
800	31	2,000	8.0	-2.6	26	4.7
750	31	2,530	5.2	-5.6	27	5.9
700	31	3,090	1.7	-8.7	27	6.5
650	31	3,685	-1.4	-12.4	27	7.1
600	31	4,318	-5.4	-16.2	28	7.4
550	31	4,996	-9.5	-21.9	27	7.8
500	31	5,725	-14.3	-27.3	27	9.0
450	31	6,516	-20.0	-32.6	27	9.7
400	31	7,378	-26.4	-39.2	27	10.8
350	31	8,333	-33.8	-45.9	28	12.1
300	31	9,391	-42.0	-50.1	27	15.0
250	31	10,603	-50.3		27	18.3
200	31	12,034	-57.5		27	22.3
175	31	12,874	-59.1		27	21.2
150	31	13,838	-59.5		27	18.3
125	31	14,976	-60.8		27	14.6
100	31	16,357	-62.5		27	10.3
80	31	17,732	-62.8		28	6.7
70	31	18,557	-61.4		29	4.4
60	31	19,516	-60.1		31	1.6
50	31	20,660	-57.5		04	.7
40	30	22,080	-54.5		08	2.3
30	29	23,935	-51.6		09	2.5
25	27	25,124	-50.1		08	2.6
20	26	26,587	-47.4		08	2.4
15	25	28,506	-44.1		06	.9
10	21	31,255	-39.1		30	1.4

LONGVIEW, TX — 1000 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	124	14.9	13.7	17	.4
1000	15	165	15.0	11.6	13	.4
950	31	565	16.5	10.6	22	2.1
900	31	1,025	14.6	8.1	24	3.5
850	31	1,506	11.9	4.0	26	4.4
800	31	2,012	9.7	-1.3	27	5.2
750	31	2,545	6.6	-4.9	27	6.6
700	31	3,109	3.5	-9.7	28	6.9
650	31	3,706	-.1	-13.9	28	8.1
600	31	4,342	-4.2	-18.0	28	9.6
550	31	5,022	-8.9	-23.3	28	10.9
500	31	5,754	-13.5	-29.1	27	11.8
450	31	6,547	-19.0	-34.0	27	12.7
400	31	7,413	-25.5	-39.8	27	13.9
350	31	8,371	-32.8	-46.0	28	16.7
300	31	9,435	-40.9	-50.8	27	19.8
250	31	10,653	-49.1		27	23.9
200	31	12,087	-57.7		27	27.6
175	31	12,924	-60.1		27	27.4
150	31	13,884	-61.3		27	23.0
125	31	15,010	-63.2		27	17.9
100	31	16,377	-64.8		27	12.5
80	31	17,738	-64.9		28	7.6
70	31	18,554	-64.0		29	4.0
60	31	19,504	-61.7		06	1.0
50	31	20,641	-58.7		09	1.6
40	31	22,054	-55.5		08	2.6
30	30	23,903	-52.0		09	3.6
25	30	25,089	-50.2		08	3.3
20	30	26,558	-47.1		07	2.2
15	27	28,471	-44.6		01	1.0
10	16	31,196	-40.2			

MCGRATH, AK — 993 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	30	103	3.5	-.5	32	.8
1000	5	128	5.5	-2.5		
950	30	487	4.7	-2.5	33	.4
900	30	906	1.8	-4.4	10	.4
850	30	1,364	-1.7	-6.5	15	1.7
800	30	1,844	-5.0	-8.7	15	2.0
750	30	2,348	-8.2	-12.2	14	2.2
700	30	2,881	-11.7	-16.0	14	2.6
650	30	3,445	-15.0	-20.1	13	2.6
600	30	4,046	-19.0	-24.7	14	3.3
550	30	4,689	-23.4	-29.8	13	3.4
500	30	5,379	-28.3	-34.7	12	3.4
450	30	6,126	-33.8	-40.2	11	3.3
400	30	6,942	-39.8	-43.9	10	3.2
350	30	7,844	-46.5		10	3.5
300	30	8,850	-52.5		09	2.8
250	30	10,028	-51.3		09	1.9
200	30	11,490	-48.0		14	1.3
175	30	12,372	-47.4		16	1.4
150	30	13,392	-47.4		16	1.7
125	30	14,597	-47.7		16	1.9
100	29	16,067	-48.5		15	2.1
80	29	17,538	-48.1		14	2.2
70	29	18,418	-48.2		13	2.0
60	29	19,434	-48.5		12	2.9
50	29	20,633	-48.5		12	3.0
40	28	22,101	-48.8		10	3.6
30	28	24,001	-48.3		10	4.3
25	27	25,198	-47.6		10	5.4
20	26	26,672	-46.1		09	6.4
15	21	28,609	-44.0		09	7.4
10	12	31,433	-40.1		09	10.2
7	7	33,876	-36.2			

MAJURO, MARSHALL IS. — 1011 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	3	28.0	24.3	03	4.1
1000	31	101	26.5	23.2	08	5.6
950	31	554	23.4	21.6	09	7.9
900	31	1,026	20.7	18.3	09	8.4
850	31	1,520	18.0	15.3	10	7.7
800	31	2,038	15.7	11.1	10	5.8
750	31	2,585	13.1	7.6	11	5.4
700	31	3,163	10.2	4.5	11	4.5
650	31	3,778	6.9	2.1	11	3.9
600	31	4,432	3.6	-1.1	10	2.8
550	31	5,134	-.6	-5.3	11	1.7
500	31	5,891	-4.5	-11.3	16	.7
450	31	6,714	-9.1	-17.9	22	.2
400	31	7,617	-14.0	-24.2	25	1.0
350	31	8,619	-21.0	-32.9	24	1.5
300	31	9,736	-29.3	-40.9	25	2.3
250	31	11,011	-39.6	-50.2	24	3.2
200	31	12,497	-52.1		24	5.6
175	31	13,348	-59.1		25	6.5
150	31	14,296	-67.1		26	8.0
125	31	15,378	-74.3		27	8.9
100	29	16,653	-80.2		27	7.0
80	29	17,922	-76.6		28	6.7
70	29	18,700	-71.7		27	8.6
60	29	19,626	-65.0		27	8.0
50	27	20,748	-61.1		27	5.7
40	27	22,148	-57.2		25	2.3
30	24	23,983	-53.9		09	4.4
25	21	25,161	-51.9		09	10.8
20	21	26,620	-47.7		09	17.3
15	16	28,530	-44.0		09	25.2
10						
7						

MEDFORD, OR — 971 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	401	7.5	3.9	30	.6
1000						
950	31	583	9.8	3.5	30	1.1
900	31	1,032	8.3	1.8	33	.9
850	31	1,502	6.0	-1.0	08	.3
800	31	1,997	4.1	-6.8	27	.9
750	31	2,520	1.9	-12.4	28	2.9
700	31	3,074	-.8	-16.6	26	5.3
650	31	3,662	-4.1	-20.4	25	7.0
600	31	4,289	-7.9	-22.9	25	8.2
550	31	4,959	-12.3	-26.7	26	9.8
500	31	5,681	-17.0	-31.8	26	12.2
450	31	6,464	-22.2	-35.8	26	13.3
400	31	7,319	-28.7	-40.5	26	14.8
350	31	8,264	-35.7	-45.1	26	16.9
300	31	9,315	-44.1		26	17.9
250	31	10,514	-53.2		27	19.1
200	31	11,927	-59.6		27	18.2
175	31	12,762	-59.4		26	17.6
150	31	13,728	-59.4		26	14.8
125	30	14,867	-59.5		26	11.2
100	30	16,262	-59.4		26	8.5
80	29	17,659	-59.4		25	4.8
70	29	18,497	-58.6		26	2.9
60	29	19,467	-58.3		27	1.0
50	29	20,615	-57.7		36	.8
40	29	22,032	-55.4		08	1.8
30	28	23,875	-53.8		08	3.5
25	28	25,050	-52.4		09	3.4
20	27	26,504	-50.0		08	3.0
15	23	28,406	-46.5		07	3.6
10	20	31,129	-40.7		07	3.6
7						

MERIDA, MEXICO — 1012 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	11	22.3	21.2	10	.6
1000	31	112	23.0	21.0	12	3.1
950	31	560	21.7	17.4	14	6.4
900	31	1,030	20.4	11.6	14	5.2
850	31	1,522	18.1	6.3	14	3.3
800	31	2,038	14.9	3.3	15	2.0
750	31	2,581	11.4	-1.0	18	1.0
700	31	3,155	8.2	-7.1	23	.8
650	31	3,763	4.9	-11.7	26	1.1
600	31	4,411	1.0	-16.7	30	1.7
550	31	5,105	-3.1	-19.9	29	2.9
500	31	5,853	-7.6	-23.5	29	3.9
450	31	6,666	-12.4	-28.9	28	6.1
400	31	7,555	-18.7	-34.4	28	7.5
350	30	8,539	-25.7	-40.1	27	9.1
300	30	9,635	-33.9	-46.4	27	11.4
250	30	10,888	-43.3		27	14.4
200	30	12,354	-54.4		27	14.5
175	31	13,197	-60.3		27	16.9
150	31	14,147	-66.6		27	18.9
125	31	15,234	-71.1		27	20.1
100	31	16,538	-75.2		28	15.2
80	29	17,835	-73.3		29	8.1
70	29	18,624	-70.3		33	2.7
60	29	19,550	-66.0		04	2.5
50	29	20,667	-61.7		07	4.1
40	29	22,007	-56.2		08	6.8
30	28	23,917	-50.7		09	7.6
25	28	25,111	-48.5		09	8.8
20	27	26,588	-45.5		09	11.2
15	23	28,522	-42.2		09	12.7
10	5	31,363	-34.7			

MIAMI, FL — 1016 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	4	23.7	20.9	14	1.5
1000	31	142	23.7	21.3	15	2.6
950	31	590	20.8	18.3	17	4.2
900	31	1,057	18.1	14.0	18	4.0
850	31	1,545	15.4	9.2	20	3.9
800	31	2,058	12.5	5.6	22	4.2
750	31	2,597	9.4	2.0	23	4.6
700	31	3,166	5.9	-2.7	23	5.0
650	31	3,770	2.9	-8.3	24	5.5
600	31	4,414	-.5	-15.0	25	5.8
550	31	5,105	-4.5	-19.4	25	6.6
500	31	5,849	-8.9	-22.7	27	7.8
450	31	6,657	-14.4	-26.8	27	9.5
400	31	7,539	-20.6	-33.2	27	11.1
350	31	8,515	-27.9	-38.6	26	13.1
300	31	9,601	-36.1	-46.5	26	15.2
250	30	10,842	-45.5		27	17.5
200	31	12,293	-56.5		27	22.6
175	31	13,130	-61.7		27	27.2
150	31	14,076	-66.0		28	25.0
125	31	15,171	-69.8		28	20.3
100	31	16,492	-71.8		28	12.4
80	29	17,810	-69.9		29	7.4
70	29	18,614	-66.4		33	2.5
60	29	19,555	-63.6		07	2.0
50	28	20,684	-59.6		08	3.5
40	27	22,092	-55.8		09	6.6
30	26	23,940	-51.1		09	6.5
25	24	25,134	-48.3		09	6.6
20	23	26,611	-45.5		10	6.2
15	15	28,550	-41.7		10	3.4

MIDLAND, TX — 913 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	874	13.6	10.1	11	.6
1000						
950						
900						
850	31	1,009	14.9	9.4	14	1.2
800	31	1,494	14.9	2.2	21	2.3
750	31	2,005	12.7	-1.7	26	2.7
700	31	2,544	9.6	-4.9	27	4.5
650	31	3,112	5.3	-8.3	28	6.2
600	31	3,713	1.0	-11.3	29	6.4
550	31	4,352	-3.6	-15.9	28	6.0
500	31	5,032	-8.6	-20.7	28	7.3
450	31	5,765	-13.6	-26.3	28	10.0
400	31	6,557	-19.3	-33.5	28	11.1
350	31	7,422	-25.9	-38.9	27	11.8
300	31	8,378	-33.0	-45.8	27	14.6
250	31	9,440	-41.5	-50.6	27	18.0
200	30	10,652	-50.5		27	22.8
175	30	12,081	-58.1		27	27.2
150	30	12,917	-60.8		27	26.9
125	30	13,877	-62.5		27	22.6

RAWINSONDE DATA

Average monthly values

MONETT, MO — 964 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	438	10.7	8.8	18	.8
1000						
950	31	557	13.2	8.0	20	.9
900	30	1,013	11.5	5.1	26	2.1
850	30	1,488	8.9	.6	29	3.1
800	30	1,989	7.0	-3.0	29	4.1
750	30	2,518	4.3	-5.7	29	5.0
700	30	3,076	1.1	-8.8	30	5.2
650	30	3,669	-2.1	-12.4	29	5.2
600	30	4,301	-5.8	-16.5	29	5.0
550	30	4,978	-10.2	-21.8	28	5.9
500	30	5,706	-14.9	-27.8	28	6.9
450	30	6,495	-20.4	-33.7	28	7.3
400	30	7,356	-26.8	-38.4	28	7.6
350	30	8,319	-33.9	-43.9	27	8.7
300	30	9,368	-42.3	-48.2	27	10.8
250	29	10,579	-51.1		28	12.5
200	29	12,005	-58.2		27	16.8
175	29	12,844	-58.7		27	18.1
150	29	13,813	-58.6		27	17.2
125	29	14,957	-59.5		27	13.4
100	29	16,347	-61.5		28	10.1
90	29	17,278	-61.5		28	7.4
70	29	18,558	-60.6		29	5.1
60	28	19,520	-59.5		29	2.6
50	28	20,669	-56.7		34	.4
40	28	22,093	-54.1		07	1.8
30	28	23,944	-52.0		09	2.9
25	27	25,127	-50.7		08	2.5
20	27	26,590	-48.1		07	2.0
15	22	28,489	-45.4		04	1.6
10	9	31,199	-39.9			
7						

NASHVILLE, TN — 994 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	180	12.5	9.8	23	.3
1000						
950	31	562	13.5	6.4	19	1.5
900	30	1,016	11.0	4.2	23	2.8
850	30	1,491	8.2	1.2	24	3.2
800	30	1,990	6.4	-3.9	26	4.0
750	30	2,518	4.1	-8.5	26	5.1
700	30	3,076	1.2	-10.9	26	6.3
650	30	3,669	-2.0	-15.0	26	7.4
600	30	4,301	-5.6	-19.4	26	8.4
550	30	4,978	-9.9	-23.0	26	9.0
500	30	5,706	-14.8	-28.7	26	10.5
450	30	6,495	-20.4	-33.0	26	11.7
400	30	7,357	-26.6	-38.1	26	12.0
350	30	8,319	-33.9	-45.1	26	14.3
300	30	9,369	-41.9	-47.4	26	16.6
250	29	10,582	-50.2		26	20.3
200	29	12,011	-58.6		26	24.2
175	29	12,846	-60.0		26	23.5
150	29	13,809	-59.8		26	19.4
125	29	14,946	-61.1		26	16.3
100	29	16,328	-62.4		27	11.7
90	29	17,704	-62.5		28	8.0
70	29	18,930	-61.3		28	4.7
60	28	19,891	-59.7		29	2.1
50	28	20,837	-57.2		35	.5
40	28	22,057	-54.7		08	1.3
30	28	23,908	-52.6		09	2.3
25	28	25,090	-51.0		07	2.8
20	27	26,546	-48.8		08	3.0
15	22	28,445	-45.1		02	2.8
10	13	31,179	-41.1			
7						

NOME, AK — 1007 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	5	-1.5	-4.2	02	.7
1000	25	84	.2	-4.0	04	.8
950	31	476	.0	-5.3	10	1.5
900	30	907	-1.8	-8.0	12	1.3
850	30	1,361	-3.9	-11.4	15	1.3
800	30	1,837	-6.7	-14.7	15	2.1
750	30	2,338	-9.5	-17.7	16	2.0
700	30	2,868	-12.7	-21.5	16	3.2
650	30	3,430	-15.9	-24.4	16	3.8
600	30	4,029	-19.5	-28.6	16	3.2
550	30	4,671	-23.6	-32.4	16	3.4
500	30	5,361	-28.3	-36.8	16	3.9
450	30	6,108	-34.0	-42.1	16	4.3
400	30	6,922	-40.3	-45.1	15	4.2
350	30	7,823	-46.9		15	6.2
300	30	8,828	-52.4		15	4.7
250	28	10,000	-51.6		15	3.4
200	28	11,465	-48.5		16	.6
175	28	12,345	-47.9		14	.8
150	28	13,362	-48.1		16	.7
125	28	14,573	-48.1		15	.9
100	28	16,043	-48.1		13	1.8
90	28	17,516	-47.7		12	2.7
70	28	18,998	-47.7		12	2.7
60	28	19,916	-47.9		11	2.8
50	28	20,818	-48.0		11	3.1
40	28	22,082	-48.1		10	3.8
30	26	23,971	-48.0		10	4.0
25	25	25,171	-47.4		10	4.8
20	24	26,658	-45.8		10	6.4
15	19	28,563	-43.8		09	7.7
10	9	31,330	-39.9			
7						

NORTH PLATTE, NE — 851 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	[illegible]	[illegible]	2.8	10	.1
1000	3	6	11.1	8.6	25	1.3
950	3	132	11.0	.	26	1.7
900	31	560	11.5	.	29	2.8
850	31	1,015	10.1	-4.2	32	4.8
800	31	1,498	13.4	-7.4	32	4.3
750	31	2,004	10.3	-10.6	30	3.6
700	31	2,538	7.2	-12.9	29	3.5
650	31	3,101	3.7	-17.1	29	3.7
600	31	3,699	-.1	-19.6	30	4.0
550	31	4,336	-4.2	-23.7	28	4.3
500	31	5,014	-8.9	-27.6	28	5.3
450	31	5,744	-14.2	-31.2	28	6.8
400	31	6,534	-20.4	-35.3	28	6.8
350	31	7,391	-27.1	-40.3	28	7.6
300	30	8,342	-34.7	-46.9	29	9.2
250	30	9,396	-43.4			10.5
200	30	10,598	-52.8		29	12.8
175	30	12,010	-60.6		29	13.5
150	30	12,839	-61.1		28	13.1
125	30	13,772	-61.1		28	12.7
100	30	14,917	-59.2		29	10.4
90	30	15,305	-60.3		29	7.6
70	30	16,305	-62.6			3.7
60	30	17,680	-61.6		27	2.3
50	30	18,515	-60.9		27	2.3
40	30	19,476	-61.1		34	.5
30	30	20,617	-58.1		07	1.2
25	28	22,025	-56.8		08	2.5
20	28	23,863	-53.7		06	3.0
15	28	25,040	-51.1			2.6
10	28	26,494	-49.4		06	2.0
7	28	28,398	-48.6		09	1.7
	17	31,132	-40.7		30	1.7

OMAHA, NE — 967 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	403	10.2	5.8	34	.3
1000						
950	31	548	12.4	4.4	23	1.0
900	31	1,001	11.1	.8	23	2.2
850	31	1,476	8.4	-1.4	28	1.6
800	31	1,975	5.9	-4.7	32	2.6
750	31	2,501	3.0	-6.9	32	3.7
700	31	3,057	.1	-11.3	32	4.5
650	31	3,648	-2.7	-17.1	32	5.0
600	31	4,278	-6.3	-20.7	31	5.9
550	31	4,953	-10.7	-24.5	31	6.9
500	31	5,679	-15.6	-29.7	31	7.1
450	31	6,466	-21.2	-35.5	31	8.2
400	31	7,324	-27.8	-41.2	30	8.6
350	31	8,272	-35.2	-45.0	31	9.2
300	31	9,324	-43.7	-50.7	30	9.6
250	31	10,524	-53.1		30	10.5
200	31	11,938	-59.9		29	11.5
175	31	12,771	-59.5		29	12.2
150	31	13,740	-58.1		29	11.2
125	31	14,887	-58.8		29	10.0
100	31	16,285	-59.6		29	6.9
90	31	17,678	-60.1		29	6.0
70	31	18,514	-59.0		30	4.5
60	31	19,484	-57.7		32	2.4
50	31	20,641	-55.7		04	1.4
40	30	22,066	-54.0		07	2.6
30	29	23,919	-52.1		08	3.2
25	29	25,103	-50.9		08	3.7
20	23	26,563	-48.7		07	3.5
15	18	28,471	-45.5		07	3.9
10	9	31,192	-40.7			
7						

PAGO PAGO, AMERICAN SAMOA — 1012 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	5	28.1	24.0	09	3.3
1000	31	112	26.4	22.9	09	3.5
950	31	566	22.8	20.5	08	3.4
900	31	1,034	19.7	17.2	07	3.5
850	31	1,526	16.8	14.0	05	3.2
800	31	2,042	14.6	10.9	04	3.0
750	31	2,587	12.0	6.7	04	2.6
700	31	3,163	8.8	2.5	04	1.9
650	31	3,774	5.5	-.8	02	1.2
600	31	4,424	1.6	-5.7	01	.9
550	31	5,121	-2.1	-11.0	32	1.4
500	31	5,874	-6.3	-18.1	32	2.4
450	31	6,689	-11.1	-23.3	30	2.4
400	31	7,584	-16.6	-29.1	28	2.9
350	31	8,577	-23.5	-33.3	26	2.8
300	31	9,682	-32.0	-43.4	23	6.0
250	31	10,942	-42.4		23	7.5
200	31	12,410	-54.6		23	10.2
175	31	13,252	-61.4		23	12.3
150	31	14,192	-68.2		23	14.8
125	31	15,273	-73.6		24	13.4
100	31	16,556	-79.4		26	8.9
90	31	17,822	-77.3		26	4.8
70	31	18,599	-72.3		27	3.7
60	31	19,518	-66.9		27	2.0
50	31	20,636	-61.5		30	2.0
40	30	22,034	-57.7		29	2.1
30	25	23,867	-53.5		11	.8
25	24	25,040	-51.1		08	3.6
20	23	26,513	-47.9		08	6.6
15	17	28,421	-43.7		09	11.2
10	10	31,179	-38.5		09	14.3
7						

PEORIA, IL — 991 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	200	9.7	6.5	05	.6
1000						
950	31	552	11.9	3.5	30	.3
900	31	1,004	10.1	.9	28	1.8
850	31	1,477	7.1	-.9	28	2.8
800	31	1,973	4.6	-5.6	28	3.7
750	31	2,497	2.2	-8.4	28	4.9
700	31	3,052	-.3	-12.6	28	5.8
650	31	3,642	-3.3	-16.4	28	6.5
600	31	4,271	-6.9	-20.1	29	7.4
550	31	4,945	-11.3	-24.5	28	8.4
500	31	5,669	-16.4	-28.9	28	9.5
450	31	6,453	-21.9	-34.2	28	10.9
400	31	7,309	-28.2	-39.8	28	12.7
350	31	8,256	-35.6	-45.4	28	14.1
300	31	9,307	-43.8	-53.4	28	15.2
250	31	10,509	-52.2		28	16.1
200	31	11,930	-58.3		28	18.1
175	31	12,770	-58.2		28	16.6
150	31	13,741	-57.9		28	14.7
125	31	14,893	-57.9		28	12.2
100	31	16,294	-59.2		28	9.0
90	30	17,690	-59.3		29	6.3
70	30	18,529	-58.3		29	4.0
60	30	19,503	-57.0		29	2.1
50	29	20,664	-55.1		32	.5
40	28	22,093	-53.5		06	2.1
30	28	23,952	-51.6		08	3.2
25	28	25,140	-50.1		08	3.2
20	28	26,603	-48.6		08	3.0
15	28	28,300	-45.8		07	2.4
10	18	31,244	-39.6		07	2.5
	15	33,701	-34.7		05	3.0

PITTSBURGH, PA — 973 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	359	9.2	4.3	24	1.8
1000						
950	31	555	10.5	4.1	25	4.1
900	31	1,005	8.5	2.2	26	6.4
850	31	1,475	5.6	-.5	27	6.5
800	31	1,969	3.0	-4.7	27	7.6
750	31	2,489	.1	-9.6	28	9.0
700	31	3,040	-2.3	-14.0	27	9.9
650	31	3,625	-5.4	-17.4	27	11.2
600	31	4,250	-8.8	-20.1	26	12.8
550	31	4,919	-12.5	-25.4	27	14.7
500	31	5,640	-17.2	-29.3	27	16.2
450	31	6,423	-22.5	-34.8	27	17.5
400	31	7,277	-28.5	-41.1	27	19.0
350	31	8,223	-35.5	-46.0	27	21.5
300	31	9,276	-43.4	-50.3	27	23.4
250	31	10,482	-51.0		26	25.0
200	31	11,911	-57.3		27	24.8
175	31	12,753	-58.3		27	22.5
150	31	13,723	-58.1		27	18.2
125	31	14,872	-58.4		27	15.1
100	31	16,275	-59.4		27	10.6
90	30	17,670	-59.8		26	6.3
70	30	18,508	-58.1		27	4.5
60	29	19,485	-57.0		26	1.7
50	29	20,644	-55.6		07	.3
40	26	22,078	-54.0		08	2.0
30	25	23,933	-52.2		08	3.9
25	24	25,116	-50.7		09	4.5
20	23	26,572	-48.4		09	3.8
15	16	28,474	-45.5		07	3.0
10	8	31,158	-40.1			
7						

PONAPE, CAROLINE IS. — 1005 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	39	27.8	24.5	08	1.7
1000	31	86	26.8	23.4	09	1.8
950	31	534	23.1	21.4	11	3.2
900	31	1,008	20.1	18.4	12	[illegible]
850	31	1,499	17.8	15.0	13	2.6
800	31	2,017	15.4	12.2	14	2.4
750	31	2,563	12.6	[illegible]	13	2.8
700	31	3,141	[illegible]	5.1	13	3.0
650	31	3,754	6.8	1.9	13	2.9
600	31	4,407	[illegible]	-2.4	[illegible]	2.7
550	31	5,108	-.9	-6.5	12	2.3
500	31	5,863	-5.1	-12.0	13	2.4
450	31	6,683	-9.7	-17.6	15	3.1
400	31	7,585	-15.2	-24.5	15	2.1
350	31	8,585	-21.8	-32.5	18	1.4
300	31	9,699	-30.0	-40.5	[illegible]	1.4
250	31	10,970	-40.8	-49.6	01	1.7
200	31	12,455	-53.5		31	.8
175	31	13,302	-59.2		32	1.6
150	31	14,251	-67.0		35	2.7
125	31	15,332	-74.4		01	2.4
100	31	16,609	-80.9		01	1.8
90	31	17,871	-77.1		31	3.5
70	31	18,649	-71.7		28	5.9
60	31	19,572	-65.8		27	7.9
50	31	20,692	-61.8		26	[illegible]
40	30	22,080	-58.9		27	3.5
30	29	23,917	-53.9		10	[illegible]
25	29	25,092	-52.4		09	10.0
20	28	26,567	-48.7		09	10.1
15	24	28,463	-44.7		09	24.5
10	11	31,193	-38.6			
7						

PORTLAND, ME — 1011 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	20	9.1	5.8	24	1.3
1000	29	120	10.1	4.3	27	2.0
950	31	538	10.0	2.6	26	3.8
900	30	986	7.6	.6	26	4.3
850	31	1,454	4.8	-2.2	26	4.9
800	31	1,947	2.2	-5.1	26	6.7
750	31	2,466	-.5	-10.1	26	8.5
700	31	3,015	-3.1	-14.6	26	10.2
650	31	3,598	-6.4	-17.9	26	11.9
600	31	4,220	-9.7	-22.0	25	13.4
550	31	4,887	-13.7	-26.6	26	15.3
500	31	5,604	-18.7	-31.3	26	17.1
450	31	6,382	-23.8	-35.0	26	19.2
400	31	7,231	-30.1	-40.9	26	20.0
350	31	8,172	-36.5	-45.4	26	21.9
300	31	9,222	-43.7		26	25.4
250	31	10,426	-51.3		26	27.9
200	31	11,861	-55.4		26	24.9
175	31	12,714	-55.9		26	22.6
150	31	13,693	-56.1		26	17.6
125	31	14,850	-56.9		26	13.8
100	31	16,261	-58.2		26	10.0
90	31	17,668	-57.3		27	5.1
70	31	18,514	-56.4		27	2.8
60	31	19,496	-55.5		23	.9
50	30	20,664	-53.9		09	1.3
40	28	22,095	-52.8		10	1.9
30	26	23,958	-51.5		08	3.5
25	25	25,143	-50.3		08	5.1
20	23	26,604	-48.1		09	4.9
15	23	28,511	-44.2		09	4.8
10	16	31,258	-38.2		11	3.5

QUILLAYUTE, WA — 1012 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	58	6.7	5.4	12	.3
1000	31	153	7.4	5.2	21	.6
950	31	575	6.1	2.2	23	2.5
900	31	1,017	3.9	-1.8	22	3.5
850	31	1,480	1.7	-4.1	22	4.8
800	31	1,967	.7	-6.9	22	5.4
750	31	2,480	-3.1	-11.5	23	7.0
700	31	3,024	-6.0	-15.5	23	8.1
650	31	3,601	-9.2	-19.7	24	9.0
600	31	4,216	-12.4	-22.7	24	10.3
550	31	4,876	-16.6	-26.3	24	11.6
500	31	5,586	-21.5	-29.9	24	13.3
450	31	6,354	-26.2	-34.6	25	15.3
400	31	7,197	-32.0	-40.6	25	16.8
350	31	8,130	-38.7	-45.1	25	18.8
300	31	9,169	-46.1		25	20.5
250	31	10,360	-53.0		25	20.2
200	31	11,792	-55.9		25	20.9
175	31	12,642	-55.6		25	19.2
150	31	13,624	-55.5		25	14.4
125	31	14,788	-55.8		25	11.8
100	31	16,207	-56.3		24	8.0
90	31	17,623	-56.2		24	4.6
70	31	18,473	-56.2		25	3.4
60	31	19,452	-56.3		25	1.2
50	31	20,614	-55.6		05	.8
40	31	22,041	-54.2		08	1.9
30	31	23,892	-52.9		09	3.3
25	31	25,106	-51.6		08	4.2
20	31	26,520	-49.8		09	5.5
15	25	28,426	-46.8		09	8.1
10	14	31,215	-41.1			
7						

RAPID CITY, SD — 905 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	966	7.3	2.1	33	1.7
1000						
950						
900	25	1,026	8.4	1.2	32	2.0
850	31	1,486	9.2	-.8	32	1.6
800	31	1,987	6.9	-4.1	32	2.4
750	31	2,515	4.1	-5.3	31	4.1
700	31	3,073	.7	-8.9	32	4.8
650	31	3,665	-2.6	-12.5	31	5.2
600	31	4,295	-6.8	-16.5	31	5.9
550	31	4,969	-11.0	-22.4	30	6.8
500	31	5,695	-16.1	-26.9	30	7.6
450	31	6,479	-21.8	-33.9	30	8.8
400	31	7,335	-28.6	-41.0	30	8.7
350	31	8,280	-35.9	-46.6	30	9.1
300	31	9,330	-44.3		29	11.2
250	31	10,518	-53.1		29	11.8
200	31	11,939	-60.3		29	10.7
175	31	12,769	-60.8		29	11.1
150	31	13,735	-58.7		29	10.4
125	31	14,877	-58.7		29	8.4
100	31	16,278	-59.5		29	4.8
90	31	17,672	-59.5		30	5.0
70	31	18,510	-58.0		31	3.4
60	31	19,485	-56.8		32	1.9
50	30	20,645	-55.5		03	1.3
40	29	22,074	-53.7		07	2.9
30	29	23,931	-52.1		08	3.9
25	29	25,115	-50.9		08	4.1
20	28	26,575	-48.7		08	4.8
15	25	28,476	-45.4		09	4.6
10	14	31,216	-40.8			

ST CLOUD, MN — 979 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	316	5.7	2.0	36	1.2
1000						
950	31	563	10.3	-.1	05	.8
900	31	1,011	8.2	-2.5	31	1.2
850	31	1,481	5.3	-5.0	35	2.3
800	31	1,974	2.7	-8.8	33	3.2
750	31	2,494	.6	-12.7	32	4.5
700	31	3,045	-2.3	-16.8	32	6.0
650	31	3,630	-5.6	-19.2	31	7.4
600	31	4,254	-9.3	-23.0	31	8.2
550	31	4,921	-13.2	-27.2	31	9.3
500	31	5,640	-18.3	-31.4	31	10.9
450	31	6,418	-23.8	-35.7	31	11.5
400	31	7,268	-29.9	-40.4	32	12.1
350	31	8,208	-37.3	-45.7	31	12.2
300	31	9,252	-45.1		31	13.8
250	31	10,448	-52.9		30	16.1
200	30	11,867	-58.8		30	15.8
175	30	12,706	-58.2		30	13.6
150	30	13,682	-56.4		30	11.2
125	30	14,877	-57.2		30	9.6
100	30	16,246	-58.3		30	6.6
90	30	17,651	-57.6		30	3.8
70	32	18,497	-56.3		32	2.4
60	30	19,477	-55.3		36	1.6
50	29	20,638	-53.8		05	1.9
40	28	22,076	-53.1		07	2.9
30	28	23,936	-51.6		08	4.7
25	28	25,120	-50.6		08	5.4
20	27	26,578	-48.6		08	5.7
15	25	28,487	-45.8		08	5.9
10	8	31,244	-39.0			

ST PAUL ISLAND, AK — 1007 MB

| Standard pressure surface mb | No. of observations | Dynamic height me

RAWINSONDE DATA

Average monthly values

SALEM, IL
994 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	174	1.3	6.9	20	.5
1000	4	197	-4.5	-2.7		
925	31	551	13.2	4.1	21	1.1
900	4	771	11.0	1.8	24	1.8
850	31	1,198	7.9	-1.3	27	2.6
800	4	1,677	5.4	-6.0	26	3.3
750	31	2,183	3.4	-8.9	26	4.4
700	4	2,760	.4	-12.2	27	5.1
650	4	3,451	-2.7	-15.6	27	6.1
600	31	4,269	-6.3	-19.5	27	7.0
550	31	5,241	-10.8	-23.5	27	8.4
500	31	5,683	-15.6	-28.2	27	8.9
450	4	6,469	-21.2	-32.8	27	9.4
400	31	7,426	-27.5	-38.9	27	10.3
350	4	8,577	-34.8	-45.7	27	11.5
300	31	9,332	-43.1		27	13.4
250	4	10,537	-51.8		27	16.6
200	31	11,959	-58.7		27	19.8
175	31	12,797	-58.5		27	17.4
150	31	13,766	-56.6		27	15.4
125	31	14,942	-59.0		27	13.4
100	31	16,257	-60.6		28	10.3
90	31	17,695	-60.6		28	6.8
70	31	18,529	-59.6		28	4.1
50	31	19,496	-58.1		30	2.1
30	30	20,656	-55.9		02	.9
20	28	22,084	-53.8		09	1.8
15	28	23,939	-52.1		09	3.4
10	25	25,121	-50.3		08	3.2
7	25	26,585	-48.0		07	2.5
5	23	28,488	-45.1		07	2.7
3	6	31,247	-36.3			
2						

SALEM, OR
210 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	61	7.2	5.2	31	.7
1000	31	156	-4.4	-4.8	26	.2
925	31	551	8.5	2.6	31	.7
900	31	771	6.5	.0	06	1.4
850	31	1,494	3.9	-3.1	24	2.6
800	31	1,985	1.7	-8.4	26	3.9
750	31	2,530	-.7	-12.1	25	5.1
700	31	3,052	-3.0	-17.4	26	6.6
650	31	3,636	-5.9	-18.9	28	8.0
600	31	4,259	-9.6	-22.2	25	9.3
550	31	4,925	-13.9	-24.7	25	10.9
500	31	5,642	-19.0	-30.4	25	12.3
450	31	6,419	-24.2	-38.4	26	13.4
400	31	7,267	-30.5	-41.1	26	14.6
350	31	8,205	-37.3	-44.5	26	16.0
300	31	9,250	-45.2		26	17.9
250	31	10,445	-53.2		27	20.6
200	31	11,864	-58.0		27	18.7
175	31	12,736	-57.7		26	17.4
150	31	13,679	-57.7		26	14.6
125	31	14,830	-57.8		26	11.6
100	31	16,236	-58.4		25	8.7
90	31	17,640	-58.1		25	5.3
70	31	18,483	-57.6		25	3.5
50	31	19,455	-57.6		27	1.6
30	30	20,609	-56.6		04	.0
20	28	22,030	-54.9		07	2.1
15	27	23,869	-53.4		08	2.9
10	26	25,050	-52.3		08	4.0
7	26	26,501	-50.0		08	4.2
5	19	28,407	-47.3		09	4.8
3	14	31,105	-42.6		08	5.2
2						

SALT LAKE CITY, UT
870 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	1,288	11.5	3.5	25	2.4
850	31	1,484	13.6	-.7	16	3.3
800	31	1,993	11.3	-3.7	19	3.8
750	31	2,529	7.6	-6.2	23	3.7
700	31	3,093	3.3	-9.4	25	4.4
650	31	3,689	-1.0	-13.0	26	5.3
600	31	4,322	-5.9	-16.0	27	6.2
550	31	4,997	-11.1	-19.6	27	6.2
500	31	5,721	-16.4	-26.4	26	7.2
450	31	6,505	-22.1	-33.3	26	8.1
400	31	7,361	-28.5	-39.1	26	9.1
350	31	8,306	-35.9	-46.6	26	9.0
300	31	9,356	-44.4		28	9.7
250	31	10,551	-54.3		27	9.6
200	30	11,939	-60.9		27	10.8
175	30	12,789	-60.6		28	11.2
150	30	13,749	-60.6		27	10.1
125	30	14,887	-60.1		27	9.0
100	30	16,275	-61.3		28	6.0
90	30	17,657	-61.3		28	4.0
70	30	18,489	-59.8		30	2.5
50	29	19,458	-59.4		29	.6
30	30	20,609	-57.1		07	1.0
20	24	22,033	-55.2		08	2.3
15	23	23,880	-52.8		08	3.2
10	26	25,061	-51.5		07	3.6
7	22	26,512	-49.6		07	3.8
5	18	28,411	-45.7		08	2.9
3	13	31,153	-40.8		10	3.0
2						

SAN DIEGO, CA
999 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	124	14.3	11.8	20	.5
1000	10	131	14.1	10.7	32	.8
925	31	546	12.7	7.6	24	.2
900	31	1,001	14.4	-.9	31	1.2
850	31	1,484	14.0	-4.6	30	2.6
800	31	1,994	12.1	-8.5	29	2.5
750	31	2,531	9.1	-10.8	27	1.8
700	31	3,098	5.3	-14.4	24	1.4
650	31	3,699	1.5	-17.9	24	2.4
600	31	4,338	-2.8	-21.9	25	2.7
550	31	5,022	-7.6	-26.4	27	3.0
500	31	5,755	-13.1	-31.3	26	3.6
450	31	6,549	-19.0	-36.3	27	5.1
400	31	7,414	-25.8	-41.6	27	6.8
350	31	8,369	-33.5	-47.5	27	8.2
300	31	9,430	-41.6	-53.5	28	10.3
250	31	10,638	-50.6		28	13.6
200	30	12,065	-58.4		27	18.2
175	30	12,902	-60.0		27	18.3
150	30	13,862	-60.8		27	17.2
125	30	14,992	-62.5		27	13.3
100	30	16,361	-64.7		26	8.7
90	30	17,725	-64.1		27	4.9
70	30	18,545	-62.7		27	2.0
50	30	19,498	-61.7		04	.4
30	30	20,633	-59.4		09	2.2
20	28	22,041	-56.4		08	2.8
15	28	23,886	-53.0		08	3.0
10	28	25,067	-51.1		08	2.2
7	27	26,527	-48.2		08	2.3
5	25	28,437	-44.7		36	1.5
3	20	31,177	-40.1		29	2.4
2	8	33,655	-35.5			

SAN JUAN, P. R.
1017 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	6	24.0	21.2	12	2.7
1000	31	153	23.0	19.4	12	5.0
925	31	600	20.0	16.6	12	8.2
900	31	1,005	18.9	13.4	12	7.9
850	31	1,530	17.9	9.7	12	6.9
800	31	2,080	11.4	4.0	12	5.7
750	31	2,597	9.2	-3.5	12	4.6
700	31	3,167	6.9	-10.2	12	3.4
650	31	3,773	4.0	-15.0	11	2.7
600	31	4,419	.2	-19.3	09	2.3
550	31	5,112	-3.4	-23.0	08	1.5
500	31	5,859	-8.1	-27.1	05	1.0
450	31	6,669	-13.2	-31.0	36	1.5
400	31	7,550	-19.3	-36.4	34	3.3
350	31	8,538	-26.0	-41.6	32	5.1
300	31	9,630	-35.0	-48.3	32	8.8
250	31	10,875	-44.8		32	13.2
200	31	12,331	-55.7		32	18.2
175	31	13,171	-61.3		31	20.1
150	31	14,113	-67.7		31	21.3
125	31	15,190	-73.0		31	18.1
100	31	16,494	-75.3		31	10.0
90	31	17,789	-73.6		33	4.1
70	31	18,578	-69.7		03	2.4
50	31	19,509	-64.8		08	4.4
30	28	20,632	-61.3		10	7.3
20	28	22,033	-56.6		11	7.6
15	28	23,879	-51.5		11	10.7
10	28	25,069	-49.0		11	11.9
7	25	26,539	-45.9		12	12.3
5	22	28,472	-42.4		11	13.7
3	11	31,243	-38.3		11	16.3
2						

SAULT STE MARIE, MI
986 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	221	5.4	2.2	34	1.0
1000	4	238	6.4	-.5	33	1.9
925	31	577	4.9	-1.5	32	3.6
900	31	797	3.2	-4.0	32	4.8
850	31	1,252	.3	-8.3	31	5.0
800	31	1,760	-2.5	-12.2	31	5.5
750	31	2,329	-4.5	-16.4	31	6.9
700	31	2,944	-5.4	-16.4	31	6.9
650	31	3,607	-8.4	-19.4	30	7.7
600	31	4,320	-12.0	-23.4	30	8.1
550	31	4,851	-16.0	-26.9	30	9.4
500	31	5,562	-21.5	-32.2	30	11.7
450	31	6,334	-25.8	-35.8	30	12.0
400	31	7,177	-32.0	-41.0	30	12.8
350	30	8,108	-38.7	-45.6	29	14.1
300	30	9,149	-45.4		29	15.2
250	30	10,350	-51.3		29	16.7
200	30	11,788	-53.8		29	15.1
175	30	12,645	-53.8		28	12.9
150	30	13,637	-53.5		29	10.9
125	30	14,807	-54.5		28	9.0
100	30	16,232	-55.7		28	6.5
90	30	17,652	-55.7		29	3.5
70	30	18,504	-55.1		29	2.6
50	30	19,490	-54.5		32	1.1
30	30	20,663	-52.7		08	.7
20	30	22,079	-50.2		08	2.5
15	29	23,971	-51.4		08	4.6
10	29	25,130	-50.1		08	5.3
7	28	26,620	-48.7		08	6.1
5	24	28,519	-45.5		09	7.4
3	13	31,292	-39.5		08	7.9
2						

SPOKANE, WA
932 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	760	7.1	3.2	19	2.3
1000	31	1,008	9.5	-.7	21	3.9
925	31	1,480	7.4	-3.7	23	4.5
900	31	1,976	3.1	-4.8	23	4.6
850	31	2,497	.1	-9.1	24	5.1
800	31	3,047	-3.3	-14.3	24	6.0
750	31	3,630	-6.1	-19.2	24	7.7
700	31	4,252	-10.1	-22.7	24	9.7
650	31	4,917	-14.6	-27.2	24	10.9
600	31	5,632	-19.3	-31.5	24	12.2
550	31	6,407	-24.8	-35.9	24	13.2
500	31	7,253	-31.1	-41.7	24	14.7
450	31	8,190	-37.7	-45.3	25	15.9
400	31	9,233	-45.2		25	16.7
350	31	10,430	-52.8		25	18.0
300	31	11,851	-57.2		25	16.4
250	31	12,968	-56.2		25	14.7
200	31	13,877	-56.3		25	11.8
175	31	14,807	-56.6		25	10.3
150	31	16,232	-55.7		25	7.4
125	31	17,659	-57.0		26	4.2
100	31	18,504	-56.7		27	2.8
90	31	19,483	-56.1		28	1.8
70	31	20,647	-54.6		02	1.1
50	31	22,079	-53.3		08	2.2
30	29	23,943	-51.8		09	4.1
20	28	25,130	-51.0		08	4.6
15	26	26,584	-49.5		09	5.3
10	22	26,541	-47.0		10	6.3
7	20	28,467	-43.4		10	7.1
5	10	31,232	-38.9			
3						
2						

TAMPA BAY, FL
1014 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	8	20.1	18.9	13	1.4
1000	31	134	21.6	18.8	14	2.2
925	31	579	19.9	16.1	19	4.5
900	31	1,044	17.1	12.0	21	5.4
850	31	1,530	14.4	6.6	22	6.0
800	31	2,041	11.9	1.3	23	6.4
750	31	2,578	8.8	-2.9	23	7.0
700	31	3,146	5.2	-6.5	23	7.0
650	31	3,748	1.9	-11.7	24	6.9
600	31	4,389	-1.5	-16.3	25	7.7
550	31	5,077	-5.4	-20.6	26	8.7
500	31	5,818	-10.2	-25.7	26	10.2
450	31	6,622	-15.8	-29.3	26	12.7
400	31	7,499	-22.0	-34.4	26	14.1
350	31	8,471	-28.9	-40.2	26	15.1
300	31	9,551	-37.5	-47.4	26	17.2
250	31	10,785	-46.8		26	22.0
200	31	12,230	-57.3		26	27.6
175	31	13,064	-61.9		27	30.9
150	31	14,010	-65.6		27	27.8
125	31	15,111	-68.6		27	21.6
100	31	16,441	-70.5		27	12.8
90	31	17,767	-69.4		28	6.2
70	31	18,569	-66.4		31	2.3
50	30	19,510	-63.3		08	.8
30	29	20,639	-59.9		09	2.8
20	29	22,046	-56.1		09	5.7
15	27	23,890	-52.2		09	5.7
10	26	25,074	-50.2		09	6.0
7	22	26,541	-47.0		10	6.3
5	18	28,458	-43.3		08	1.7
3	12	31,207	-38.6		02	1.4
2						

TOPEKA, KS
983 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	268	10.8	7.4	34	.4
1000	29	87	26.9	24.2	12	1.4
925	31	534	24.2	21.4	09	.5
900	31	1,007	21.2	18.4	12	.8
850	31	1,501	18.2	15.2	08	.2
800	31	2,020	15.8	12.3	31	.2
750	31	2,568	13.3	8.4	03	.7
700	31	3,146	10.2	4.2	05	.9
650	31	3,760	6.8	1.4	08	1.1
600	31	4,415	3.4	-3.1	07	1.3
550	31	5,117	-.3	-7.1	08	1.6
500	31	5,875	-4.3	-11.9	12	.5
450	31	6,699	-9.0	-17.9	14	.5
400	31	7,602	-14.5	-24.0	09	.8
350	31	8,605	-21.0	-31.2	16	.4
300	31	9,722	-29.3	-40.1	16	.5
250	31	10,997	-39.7	-48.4	16	.9
200	30	12,481	-52.4		10	.8
175	30	13,332	-59.1		06	1.9
150	30	14,281	-60.7		01	1.9
125	30	15,362	-74.8		04	3.8
100	30	16,636	-80.9		06	4.6
90	30	17,891	-77.4		36	2.6
70	30	18,667	-72.4		30	3.6
50	30	19,587	-66.6		27	6.1
30	30	20,704	-62.0		27	6.1
20	30	22,093	-58.3		27	2.4
15	30	23,923	-53.9		10	4.5
10	30	25,097	-52.1		09	9.7
7	30	26,552	-49.2		09	18.1
5	29	28,453	-44.3		09	23.3
3	15	31,213	-38.5			
2						

TRUK, CAROLINE IS.
1009 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	2	27.7	24.6	10	.8
1000	29	87	26.9	24.2	12	1.4
925	31	534	24.2	21.4	09	.5
900	31	1,007	21.2	18.4	12	.8
850	31	1,501	18.2	15.2	08	.2
800	31	2,020	15.8	12.3	31	.2
750	31	2,568	13.3	8.4	03	.7
700	31	3,146	10.2	4.2	05	.9
650	31	3,760	6.8	1.4	08	1.1
600	31	4,415	3.4	-3.1	07	1.3
550	31	5,117	-.3	-7.1	08	1.6
500	31	5,875	-4.3	-11.9	12	.5
450	31	6,699	-9.0	-17.9	14	.5
400	31	7,602	-14.5	-24.0	09	.8
350	31	8,605	-21.0	-31.2	16	.4
300	31	9,722	-29.3	-40.1	16	.5
250	31	10,997	-39.7	-48.4	16	.9
200	30	12,481	-52.4		10	.8
175	30	13,332	-59.1		06	1.9
150	30	14,281	-60.7		01	1.9
125	30	15,362	-74.8		04	3.8
100	30	16,636	-80.9		06	4.6
90	30	17,891	-77.4		36	2.6
70	30	18,667	-72.4		30	3.6
50	30	19,587	-66.6		27	6.1
30	30	20,704	-62.0		27	6.1
20	30	22,093	-58.3		27	2.4
15	30	23,923	-53.9		10	4.5
10	30	25,097	-52.1		09	9.7
7	30	26,552	-49.2		09	18.1
5	29	28,453	-44.3		09	23.3
3	15	31,213	-38.5			
2						

TUCSON, AZ
922 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	789	17.4	.5	14	2.6
1000	4	798	20.4	.9	15	2.3
925	31	1,489	17.8	-1.7	16	1.1
900	31	2,093	13.8	-4.7	20	.9
850	31	2,543	9.7	-8.1	20	2.1
800	31	3,111	5.4	-12.2	20	2.7
750	31	3,712	1.1	-14.9	21	3.7
700	31	4,350	-3.4	-19.3	22	5.4
650	31	5,032	-8.0	-23.9	23	5.4
600	31	5,766	-13.0	-29.2	25	6.6
550	31	6,560	-18.9	-33.2	25	7.6
500	31	7,425	-25.7	-39.5	26	9.5
450	31	8,381	-33.1	-45.9	26	11.3
400	31	9,443	-41.4	-50.1	26	15.2
350	31	10,657	-50.4		26	19.6
300	31	12,087	-57.6		27	20.3
250	31	12,924	-60.2		27	21.4
200	31	13,882	-61.9		27	19.1
175	31	14,373	-63.6		27	18.1
150	31	16,368	-65.7		26	16.3
125	31	17,175	-65.2		28	5.0
100	30	18,537	-63.5		28	1.8
90	30	19,486	-62.8		05	.5
70	29	20,614	-60.3		08	1.4
50	28	22,020	-56.1		08	3.6
30	26	23,864	-52.1		09	3.2
20	26	25,049	-50.5		09	2.5
15	25	26,511	-47.9		08	1.2
10	24	28,422	-44.8		36	.7
7	21	31,159	-40.5		30	4.2
5	6	33,654	-36.7			
3						
2						

VANDENBERG AFB, CA
1003 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	28	100	10.5	8.7	34	1.4
1000	27	127	10.6	8.8	34	1.8
925	28	553	11.9	4.1	35	3.9
900	28	1,010	15.7	-3.7	36	4.0
850	28	1,493	14.1	-5.1	36	3.2
800	28	2,002	11.0	-7.2	35	2.4
750	28	2,537	7.8	-11.1	33	1.7
700	28	3,102	4.4	-14.5	32	1.4
650	28	3,701	.9	-17.9	28	2.2
600	28	4,340	-2.7	-21.9	29	3.3
550	28	5,024	-7.1	-26.2	29	3.7
500	28	5,758	-12.7	-30.8	30	4.2
450	27	6,552	-19.1	-34.8	30	6.2
400	27	7,417	-26.0	-40.2	29	6.9
350	27	8,372	-33.8	-46.1	30	7.2
300	26	9,430	-42.3		30	9.1
250	25	10,639	-51.4		30	10.7
200	25	12,052	-59.6		28	12.4
175	25	12,884	-61.0		28	13.5
150	25	13,842	-61.0		27	12.5
125	25	14,973	-62.2		27	10.0
100	25	16,347	-63.2		26	7.7
90	24	17,717	-62.7		26	4.7
70	24	18,542	-61.7		26	2.4
50	23	19,496	-60.7		22	.9
30	23	20,635	-58.8		09	.9
20	22	22,050	-56.1		07	1.8
15	22	23,891	-53.5		08	2.3
10	21	25,070	-51.0		08	2.2
7	21	26,531	-48.4		04	.6
5	21	28,437	-45.4		33	1.3
3	17	31,177	-40.2		32	1.4
2	15	33,621	-36.1		30	3.2
1	5	35,992	-31.6			

VICTORIA, TX
1009 MB

Standard pressure surface	Number of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	33	18.0	16.8	07	.8
1000	31	112	20.0	16.4	11	1.2
925	31	555	18.9	12.2	15	3.4
900	31	1,018	16.9	7.6	17	2.8
850	31	1,504	14.7	3.5	21	2.3
800	31	2,015	12.7	-1.2	25	3.2
750	31	2,554	9.7	-4.3	26	5.0
700	31	3,123	6.1	-9.5	27	6.3
650	31	3,726	2.3	-12.5	28	7.6
600	31	4,368	-2.4	-16.2	28	9.7
550	31	5,052	-7.0	-22.9	28	10.3
500	31	5,788	-12.3	-27.7	28	11.5
450	31	6,585	-17.7	-33.2	28	13.5
400	31	7,456	-23.9	-38.8	28	15.6
350	31	8,420	-31.1	-44.4	27	18.6
300	31	9,492	-39.3	-49.0	27	21.2
250	31	10,716	-48.5		27	24.8
200	31	12,155	-57.1		27	31.7
175	31	12,993	-60.7		27	31.5
150	31	13,946	-63.5		27	27.7
125	31	15,056	-66.8		27	22.3
100	31	16,402	-68.0		28	12.9
90	31	17,740	-68.3		28	6.2
70	31	18,545	-66.0		29	2.9
50	30	19,488	-62.9		06	1.6
30	30	20,618	-60.1		10	3.2
20	29	22,027	-56.1		09	4.2
15	28	23,874	-52.0		09	6.5
10	28	25,063	-49.4		10	9.5
7	28	26,535	-46.6		08	3.4
5	28	28,458	-43.3		08	1.7
3	18	31,207	-38.6		02	1.4
2	5	33,757	-33.4			
1						

WA

RAWINSONDE DATA

Average m[illegible]

WASHINGTON DULLES INT. AP
[illegible] MB

Standard pressure surface	No.	Observed height meters	Temperature °C	Dew point °C	Wind Direction degrees	Wind Speed knots	No.	Observed height meters	Temperature °C	Dew point °C	Wind Direction degrees	Wind Speed knots
SFC	31	45	11.6	9.4	[illegible]	.9	31	44	17.	[illegible]	[illegible]	.3
1000	31	[illegible]	10.2	7.7	23	1.8	31	130	18.4	16.4	19	.8
950	31	561	11.6	4.1	24	4.3	31	567	17.	[illegible]	21	.8
900	31	[illegible]	11.4	1.5	27	5.8	31	1,029	15.5	[illegible]	[illegible]	1.7
850	31	1,487	7.5	-.5	27	7.4	31	1,512	12.9	[illegible]	[illegible]	5.6
800	31	1,965	4.1	[illegible]	27	P.8	31	2,020	10.5	[illegible]	[illegible]	9.8
750	31	2,510	1.7	-4.	26	9.1	31	2,555	7.8	[illegible]	[illegible]	4.6
700	31	3,095	-4.2	-11.6	24	10.1	31	3,121	-1.	-8.8	5	.8
650	31	3,715	-9.5	-15.8	26	11.4	31	3,728	[illegible]	-12.2	5	4.2
600	31	4,383	-7.1	-17.8	24	12.3	31	4,361	-2.	-15.5	5	11.1
550	31	4,957	-11.1	-19.7	25	14.8	31	5,045	-7.	-20.1	5	11.0
500	31	5,663	-15.8	-20.0	26	16.	31	5,782	[illegible]	-24.0	5	12.2
450	31	6,463	-21.2	-24.7	25	17.8	31	6,582	-17.1	-30.1	5	13.1
400	30	7,326	-27.3	-44.2	26	18.6	31	7,494	-23.4	-35.8	5	14.5
350	31	8,277	-34.2	[illegible]	26	19.8	31	8,420	[illegible]	-41.8	5	17.6
300	31	9,335	-42.1	-46.7	26	21.9	31	9,493	-38.4	-48.	5	20.3
250	30	10,547	-51.6		26	25.2	31	10,719	-48.4			
200	30	11,976	-53.7		26	25.7	31	12,155	-57.4			
175	30	12,815	-54.4		26	24.	31	12,991	-61.4			
150	31	13,780	-54.5		26	19.6	31	13,943	-62.8			
125	30	14,941	-54.0		26	16.5	31	15,059	-65.5			
100	30	16,311	-60.4		27	12.6	31	16,410	-67.			
9	30	17,701	-60.3		26	7.6	31	17,739	-66.0			
7	30	18,536	-59.2		27	4.8	31	18,574	-64.			
6	29	19,506	-57.7		26	3.3	31	19,523	-61.			
5	30	20,656	-55.6		26	2.4	31	20,661	-58.			
4	30	22,094	-53.8		30	1.1	31	22,075	-55.			
3	30	23,944	-51.1		08	2.4	31	23,924	-52.			
2	30	25,128	-51.8		07	2.4	31	25,116	-49.8			
1	28	26,572	-48.4		07	3.5	31	26,584	-47.			
15	28	28,348	-44.7		09	2.5	29	28,509	-43.1			
10	8	31,266	-39.6				7	31,241	-39.2			
7												

[illegible], NV
[illegible] MB

Standard pressure surface	No.	Observed height meters	Temperature °C	Dew point °C	Wind Direction degrees	Wind Speed knots	No.	Observed height meters	Temperature °C	Dew point °C	Wind Direction degrees	Wind Speed knots
SFC	31	[illegible]	[illegible]	-0.	[illegible]	.0	31	[illegible]	[illegible]	[illegible]	[illegible]	.3
1000	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	31	1,487	12.	-2.5	[illegible]	1.4	31	1,509	[illegible]	[illegible]	[illegible]	[illegible]
800	31	1,993	9.8	[illegible]	[illegible]	[illegible]	31	2,008	[illegible]	[illegible]	[illegible]	[illegible]
750	31	2,526	6.3	-3.4	[illegible]	[illegible]	31	2,547	[illegible]	[illegible]	[illegible]	[illegible]
700	31	3,087	[illegible]	-10.	[illegible]	[illegible]	31	3,115	[illegible]	[illegible]	[illegible]	[illegible]
650	31	3,682	[illegible]	-13.8	[illegible]	[illegible]	31	3,715	[illegible]	[illegible]	[illegible]	[illegible]
600	31	4,314	-5.	[illegible]	[illegible]	[illegible]	31	4,351	[illegible]	[illegible]	[illegible]	[illegible]
550	31	4,990	[illegible]	-22.3	[illegible]	[illegible]	31	5,030	[illegible]	[illegible]	[illegible]	[illegible]
500	31	5,717	[illegible]	-28.	[illegible]	[illegible]	31	5,759	-14.7	-28.	[illegible]	[illegible]
450	31	6,503	[illegible]	[illegible]	[illegible]	[illegible]	31	6,548	[illegible]	[illegible]	[illegible]	[illegible]
400	31	7,360	-28.	-38.	[illegible]	[illegible]	31	7,409	[illegible]	[illegible]	[illegible]	[illegible]
350	31	8,307	-35.	[illegible]	[illegible]	[illegible]	31	8,360	[illegible]	[illegible]	[illegible]	[illegible]
300	31	9,358	[illegible]			12.3	31	9,415	[illegible]			8.5
250	31	10,560	-53.			12.8	31	10,619	[illegible]			[illegible]
200	31	11,972	-60.0			12.9	31	12,040	-59.0			15.
175	31	12,805	-59.7			[illegible]	31	12,875	[illegible]			15.
150	31	13,770	-59.			[illegible]	31	13,835	[illegible]			13.6
125	31	14,909	-60.5			19.1	31	14,964	[illegible]			12.1
100	31	16,028	-60.			12.1	31	16,088	[illegible]			8.5
9	31	17,685	-61.1			[illegible]	31	17,703	[illegible]			[illegible]
7	31	18,517	-59.			[illegible]	31	18,524	[illegible]			[illegible]
6	31	19,483	-58.9			[illegible]	31	[illegible]	[illegible]			[illegible]
5	31	20,631	-57.2			[illegible]	31	20,607	-59.5			[illegible]
4	31	22,042	-55.4			[illegible]	31	22,019	-56.0			[illegible]
3	31	23,887	-52.9			[illegible]	31	23,880	[illegible]			[illegible]
2	31	25,074	-51.4			[illegible]	31	25,040	[illegible]			[illegible]
1	31	26,535	-48.7			[illegible]	31	26,498	[illegible]			[illegible]
15	31	28,447	-45.			[illegible]	31	28,397	[illegible]			[illegible]
10	31	31,178	-38.1			[illegible]	6	31,163	-39.5			[illegible]
7												

[illegible]
[illegible] MB

Standard pressure surface	No.	Observed height meters	Temperature °C	Dew point °C	Wind Direction degrees	Wind Speed knots	No.	Observed height meters	Temperature °C	Dew point °C	Wind Direction degrees	Wind Speed knots
SFC	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1000	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	31	1,501	18.2	[illegible]	[illegible]	[illegible]	31	1,477	16.9	-.7	[illegible]	[illegible]
800	[illegible]	[illegible]	15.8	[illegible]	[illegible]	[illegible]	31	1,991	13.9	-3.4	[illegible]	[illegible]
750	[illegible]	[illegible]	13.3	[illegible]	[illegible]	[illegible]	31	2,531	10.0	-6.1	[illegible]	[illegible]
700	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	3,099	5.2	-9.	[illegible]	[illegible]
650	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	3,700	[illegible]	-12.	[illegible]	[illegible]
600	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	4,336	[illegible]	-17.	[illegible]	[illegible]
550	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	5,016	[illegible]	[illegible]	[illegible]	[illegible]
500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	5,746	[illegible]	[illegible]	[illegible]	[illegible]
450	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	6,536	[illegible]	[illegible]	[illegible]	[illegible]
400	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	7,398	[illegible]	[illegible]	[illegible]	[illegible]
350	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	8,345	[illegible]	[illegible]	[illegible]	[illegible]
300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	9,379	[illegible]	[illegible]	[illegible]	[illegible]
250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	10,602	[illegible]	[illegible]	[illegible]	[illegible]
200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	12,017	[illegible]	[illegible]	[illegible]	[illegible]
175	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	12,851	[illegible]	[illegible]	[illegible]	[illegible]
150	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	13,812	[illegible]	[illegible]	[illegible]	[illegible]
125	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	30	14,940	[illegible]	[illegible]	[illegible]	[illegible]
100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	30	16,320	[illegible]	[illegible]	[illegible]	[illegible]
80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29	17,693	[illegible]	[illegible]	[illegible]	[illegible]
70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29	18,519	[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29	19,478	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	28	20,616	[illegible]	[illegible]	[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	28	22,023	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27	23,866	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27	25,036	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25	26,486	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	23	28,391	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12	31,115	[illegible]	[illegible]	[illegible]	[illegible]

YAP, CAROLINE IS.
1008 MB

Standard pressure surface	No.	Observed height meters	Temperature °C	Dew point °C	Wind Direction degrees	Wind Speed knots
SFC	31	14	27.8	24.3	03	.4
1000	31	81	26.9	24.3	02	.4
950	31	544	23.7	21.9	30	.8
900	31	1,006	21.0	17.8	30	1.9
850	31	1,501	18.2	14.7	29	2.0
800	31	2,008	15.8	11.6	30	1.3
750	31	2,567	13.3	7.6	33	1.3
700	31	3,145	10.3	3.2	35	1.2
650	31	3,759	7.2	-1.9	36	1.5
600	31	4,414	3.4	-5.4	36	1.0
550	31	5,115	-.8	-10.1	34	.9
500	31	5,871	-4.8	-14.9	02	1.4
450	30	6,692	-9.6	-21.4	04	1.0
400	30	7,592	-15.3	-27.6	09	.8
350	30	8,591	-21.9	-36.3	12	.7
300	30	9,704	-31.	-42.7	20	1.3
250	30	10,975	-41.2	-50.7	20	2.0
200	29	12,458	-52.4		17	.4
175	29	13,308	-59.2		08	1.7
150	29	14,257	-66.8		05	4.4
125	29	15,339	-74.1		06	8.1
100	29	16,618	-80.1		07	9.7
80	29	17,882	-78.6		07	6.3
70	29	18,655	-73.1		05	2.2
60	29	19,573	-66.9		31	1.7
50	29	20,688	-62.6		27	2.5
40	27	22,075	-58.5		09	.3
30	26	23,926	-53.6		09	6.9
25	26	25,105	-51.2		10	12.7
20	26	26,545	-48.1		09	19.9
15	18	28,446	-43.9		09	23.9
10	8	31,214	-37.1			

YUCCA FLAT, NV
879 MB

Standard pressure surface	No.	Observed height meters	Temperature °C	Dew point °C	Wind Direction degrees	Wind Speed knots
SFC	31	1,198	9.4	-3.4	35	.4
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	31	1,477	16.9	-.7	[illegible]	.5
800	31	1,991	13.9	-3.4	[illegible]	[illegible]
750	31	2,531	10.0	-6.1	[illegible]	[illegible]
700	31	3,099	5.2	-9.	[illegible]	[illegible]
650	31	3,700	[illegible]	-12.	[illegible]	[illegible]
600	31	4,336	[illegible]	-17.	[illegible]	[illegible]
550	31	5,016	[illegible]	[illegible]	[illegible]	[illegible]
500	31	5,746	[illegible]	[illegible]	[illegible]	[illegible]
450	30	6,536	[illegible]	[illegible]	[illegible]	[illegible]
400	30	7,398	[illegible]	[illegible]	[illegible]	[illegible]
350	30	8,345	[illegible]	[illegible]	[illegible]	[illegible]
300	30	9,379	[illegible]	[illegible]	[illegible]	[illegible]
250	30	10,602	[illegible]	[illegible]	[illegible]	[illegible]
200	29	12,017	[illegible]	[illegible]	[illegible]	[illegible]
175	29	12,851	[illegible]	[illegible]	[illegible]	[illegible]
150	29	13,812	[illegible]	[illegible]	[illegible]	[illegible]
125	29	14,940	[illegible]	[illegible]	[illegible]	[illegible]
100	29	16,320	[illegible]	[illegible]	[illegible]	[illegible]
80	29	17,693	[illegible]	[illegible]	[illegible]	[illegible]
70	29	18,519	[illegible]	[illegible]	[illegible]	[illegible]
60	29	19,478	[illegible]	[illegible]	[illegible]	[illegible]
50	28	20,616	[illegible]	[illegible]	[illegible]	[illegible]
40	28	22,023	[illegible]	[illegible]	[illegible]	[illegible]
30	27	23,866	[illegible]	[illegible]	[illegible]	[illegible]
25	27	25,036	[illegible]	[illegible]	[illegible]	[illegible]
20	25	26,486	[illegible]	[illegible]	[illegible]	[illegible]
15	23	28,391	[illegible]	[illegible]	[illegible]	[illegible]
10	12	31,115	[illegible]	[illegible]	[illegible]	[illegible]

Clinton Memorial Library

SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun.

MAY 1976

ALBUQUERQUE, NM

Date	Sun's zenith distance: AM 78.7°	AM 75.7°	AM 70.7°	AM 60.0°	*	PM 60.0°	PM 70.7°	PM 75.7°	PM 78.7°
	Air mass: 4.19	3.35	2.41	1.67	*	1.67	2.41	3.35	4.19
1	.81	.89	1.02	1.16	1.32	1.13	.98	.83	.71
2	.80	.88	1.01	1.14	----	----	----	----	----
4	----	----	----	1.13	----	----	----	----	----
5	----	----	----	----	----	1.15	(.99)	(.80)	(.68)
8	.81	.91	1.03	----	1.43	.92	.75	.57	.47
10	.89	.99	1.11	1.26	1.42	----	----	----	----
11	.80	.93	1.04	1.20	1.42	----	----	----	----
12	.61	.77	.93	1.14	1.40	----	.67	.51	.40
13	.78	.92	1.03	1.18	1.42	1.24	1.07	.93	.82
14	.92	1.00	1.11	1.28	1.46	1.18	.92	.72	.63
15	.96	1.05	1.17	1.30	1.44	----	----	----	----
16	.64	.75	.90	1.11	1.32	----	----	----	----
17	.64	.77	.90	1.09	1.34	----	----	----	----
18	.68	.81	.96	1.10	----	----	----	----	----
19	.81	.89	1.00	1.10	----	----	----	----	----
20	----	----	----	1.15	----	----	----	----	----
21	----	----	.96	1.10	----	----	----	----	----
22	.80	.93	1.04	1.20	----	----	----	----	----
23	.86	.97	1.08	1.24	1.41	----	----	----	----
24	----	----	1.02	1.19	1.42	1.21	----	----	----
25	----	----	----	1.16	----	----	----	----	----
26	.80	.88	1.01	1.22	1.43	1.23	1.07	.96	.87
27	.86	.95	1.04	1.19	1.41	----	----	----	----
28	.70	.77	.96	1.07	1.33	----	----	----	----
29	.79	.87	1.01	1.19	1.43	----	----	----	----
30	----	----	----	----	1.40	----	1.02	.92	.83
31	.77	.87	1.01	1.19	1.38	.95	.89	.60	.50
Averages	.79	.89	1.01	1.17	1.40	1.13	.90	.76	.66

BLUE HILL OBSERVATORY, MA

Date	Sun's zenith distance: AM 78.7°	AM 75.7°	AM 70.7°	AM 60.0°	*	PM 60.0°	PM 70.7°	PM 75.7°	PM 78.7°
	Air mass: 4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89

No Data Received

MADISON, WI

	Air mass: 4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
1	M .44	M .66	M .82	M1.04	----	----	----	----	----
4	M .58	M .66	M .78	M1.01	M1.26	M .93	----	----	----
7	M .72	S .80	M .93	----	----	----	----	----	----
8	I .65	I .75	I .88	I1.07	I1.26	I .98	----	----	----
9	I .61	I .72	I .84	I1.03	I1.21	----	----	----	----
10	M .59	M .70	S .82	----	----	----	----	----	----
12	S .70	S .78	S .92	M1.08	M1.29	----	----	----	----
18	----	----	I .99	I1.15	I1.34	S1.11	S .97	S .85	S .72
19	S .61	S .72	S .86	M .93	M1.22	M .93	M .76	M .63	M .53
21	----	----	----	----	M1.29	M1.08	----	----	----
24	S .69	S .77	M .89	----	----	----	----	S .79	S .69
25	S .78	S .86	S .98	S1.13	M1.32	----	----	----	----
26	S .71	S .81	S .94	S1.08	M1.28	S1.07	----	----	----
Averages	.64	.74	.89	1.06	1.27	1.02	.87	.70	.65

MAUNA LOA OBSERVATORY, HI

	Air mass: 3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
4	1.17	1.25	1.35	1.45	----	----	----	----	----
5	1.10	1.19	1.28	----	----	----	----	----	----
6	1.09	----	1.28	1.39	----	----	----	----	----
7	1.10	1.20	1.30	1.42	----	----	----	1.16	1.08
8	1.10	1.18	1.28	1.41	1.56	1.39	1.26	1.17	1.09
9	----	----	1.29	1.41	1.56	1.41	1.29	1.19	1.10
10	----	----	----	1.43	1.59	1.40	----	1.18	----
11	1.16	1.19	1.29	1.41	1.54	----	----	----	----
12	----	----	----	----	1.54	1.40	1.28	1.19	1.23
13	1.15	1.23	1.32	1.43	1.57	----	1.29	1.20	1.13
14	1.13	1.22	1.32	1.43	1.58	1.43	1.30	1.21	1.12
17	1.09	1.18	1.28	1.40	1.55	----	----	----	----
18	----	----	1.34	1.45	1.59	1.44	1.34	1.25	1.17
20	----	----	1.33	1.44	1.57	----	----	----	----
21	1.15	1.24	1.33	1.45	1.56	----	----	1.24	1.10
22	1.12	1.21	1.29	1.40	----	----	----	----	----
24	1.12	1.20	1.28	1.40	----	----	----	----	----
25	1.08	1.17	1.26	----	----	----	----	----	----
26	1.09	1.18	1.28	1.41	----	----	----	----	----
27	1.13	1.22	1.32	1.45	----	----	----	1.25	1.16
28	1.18	1.26	1.35	1.46	1.55	----	----	----	----
29	----	----	----	----	1.56	1.41	1.30	1.21	1.15
30	1.11	1.19	1.31	1.42	----	----	----	----	----
Averages	1.12	1.20	1.30	1.42	1.56	1.41	1.29	1.20	1.13

OMAHA, NE

	Air mass: 4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
1	----	.69	.84	----	----	----	1.06	----	----
2	.71	.86	1.00	----	1.40	1.11	.92	.75	.64
4	----	----	----	1.06	----	----	----	----	----
5	----	----	----	----	1.34	1.10	.90	.40	.20
7	.68	.71	.92	1.12	1.38	1.09	.88	.70	.60
8	----	HM .73	HM .86	HS1.01	1.22	.93	----	----	----
10	.56	.64	.78	.97	----	----	----	----	----
11	----	----	----	----	1.21	.95	.74	.63	.41
14	----	----	----	----	----	----	HM .64	HM .48	HM .40
17	----	.84	1.01	1.17	----	1.18	----	----	----
18	----	.80	.99	1.13	1.36	1.14	.97	HS .83	HS .91
19	----	.71	.86	1.04	(1.26)	----	----	(.67)	----
26	----	----	----	1.12	1.29	----	----	----	----
27	----	----	H .70	H .89	----	----	----	----	----
Averages	.66	.75	.88	1.06	1.31	1.09	.83	.63	.49

TUCSON, AZ

	Air mass: 4.64	3.71	2.78	1.86	*	1.86	2.78	3.71	4.64
1	.53	.64	.86	1.09	1.37	1.17	.98	.83	.73
2	.70	.81	.94	1.13	1.34	1.07	.91	.78	.70
4	----	----	.85	----	1.30	----	----	----	----
5	----	----	----	----	1.28	----	----	----	----
6	----	----	----	----	----	----	.95	.84	.73
7	.85	.94	1.07	1.22	----	1.15	.99	.86	.72
8	.73	.85	.98	1.14	1.37	1.19	1.02	.91	.80
9	.86	.96	1.07	1.24	1.41	----	----	----	.78
10	.78	.89	1.01	1.18	1.35	----	----	.92	.81
11	.81	.91	1.02	1.19	1.41	1.12	.98	.86	.74
12	.84	.93	1.05	1.20	1.38	1.07	.88	.74	.61
13	.83	.92	1.06	1.22	1.43	1.20	1.03	.90	.76
14	.84	.95	1.07	1.24	1.43	1.19	1.06	.95	.84
15	.76	.88	1.01	1.20	1.40	1.16	.98	.85	.72
16	.63	.76	.91	1.07	1.28	----	----	----	----
17	M .39	M .51	M .69	M .91	M1.17	----	----	----	----
18	.64	.71	.91	1.07	1.31	----	----	----	----
20	----	----	.79	----	1.28	----	----	----	----
21	.69	.82	.95	1.14	1.36	1.15	.97	.87	.77
22	.92	1.00	1.12	1.28	1.44	1.26	1.10	.96	.86
23	.81	.91	1.03	1.20	1.42	1.21	1.02	.89	.77
24	----	----	----	1.21	1.42	----	----	.90	.80
25	.76	.88	1.01	1.19	1.39	1.09	.96	.84	.71
26	.65	.77	.91	1.10	1.34	1.10	.91	.77	.66
27	.64	.76	.91	1.07	1.29	1.12	.94	.79	.68
28	.73	.84	.96	1.12	1.36	1.24	1.05	.94	.82
29	.91	.99	1.13	1.28	1.44	1.24	1.08	.94	.81
30	.83	.94	1.06	1.24	1.44	1.20	1.01	.87	.74
31	.78	.89	1.01	1.20	1.42	1.18	1.02	.91	.77
Averages	.75	.85	.98	1.17	1.36	1.16	.99	.87	.75

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

MAY 1976

Station	Day of month																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
ALBUQUERQUE NM	681	684	452	478	452	288	544	541	720	699	679	733	731	727	679	710	714	695	683	652	584	587	738	714	654	741	676	757	715	588	755	644
BISMARCK ND	449	542	665	611	668	684	678	672	647	664	466	375	681	662	395	672	667	655	692	704	402	731	711	648	682	571	644	709	726	582	579	599
CARIBOU ME	610	83	204	473	404	267	142	291	559	570	609	91	394	288	445	688	253	168	120	148	276	71	172	233	355	214	384	574	717	562	426	378
EL CENTRO CA	736	657	734	693	644	686	687	695	691	670	709	706	734	721	724	711	692	717	708	690	736	743	734	747	744	713	722	742	755	714	694	719
EL PASO TX	718	725	705	675	705	581	664	659	691	722	574	692	731	739	734	681	646	64	514	652	692	734	691	614	714	741	730	735	777	770	777	677
KEY NV	786	726	736	693	736	691	747	697	694	569	737	739	736	715	757	746	739	743	677	687	734	705	692	715	720	829	815	848	586	827	---	681
FRESNO CA	625	628	605	665	628	567	639	635	656	615	662	675	678	684	688	688	1	644	511	611	677	685	746	714	677	656	668	746	674	724	724	674
GENEVA NY	294	426	401	406	392	190	99	512	481	667	130	320	651	134	567	139	426	136	141	47	111	138	428	174	654	447	228	674	217	441	418	344
GRAND JUNCTION CO	742	66	231	258	604	224	473	508	584	629	579	745	697	739	732	765	750	615	492	341	691	448	747	468	758	781	757	748	611	486	76	582
JOHNSTON ISLAND PA	689	656	671	618	---	654	655	594	543	679	383	651	643	635	658	618	574	581	584	627	668	642	641	613	637	615	666	448	586	641	44	597
LAS VEGAS NV	---	---	---	---	---	---	481	632	688	695	618	702	690	692	680	691	740	659	641	598	646	705	748	726	675	697	687	668	741	704	718	681
MADISON WI	558	485	252	657	284	475	657	687	686	591	695	674	156	660*	92	119	600	721	665	542	697	686	644	654	717	647	594	424	175	111	57	464
MIAMI FL	353	112	134	623	550*	533	647	568	561	559	275	280*	384	497*	369	484*	570	477	481	276	115	574	413	659	599	481	---	193	465	479	514	421
NASHVILLE TN	457	674	711	704	697	340	196	698	678	515	558	683	396	137	535	267	140	618	736	707	683	610	344	481	705	628	177	148	197	640	444	492
OAK RIDGE TN	172	624	666	647	687	385	180	535	616	428	453	599	470	137	426	279	317	224	671	648	624	579	395	457	665	564	185	104	170	652	564	452
PASO AZ	727	654	648	534	594	446	350	439	722	736	676	752	755	757	740	748	750	487	594	443	711	744	761	743	743	731	732	734	734	784	54	
PHOENIX AZ	681	676	551	478	641	476	458	644	696	683	687	684	713	710	702	694	611	574	470	561	693	711	697	742	744	698	688	728	731	719	729	694
SEATTLE TACOMA WA	592	141	435	70	434	675	676	661	681	191	574	654	215	586	741	441	689	749	488	662	767	515	779	649	771	523	547	677	771	547	511	591
STERLING VA	141	461	567	641	658	491	414	607	679	594	243	719	446	418	456	---	---	165	530	693	587	705	749	621	543	177	441	738	131	245	429	478
TALLAHASSEE FL	328	62	654	718	675	558	577	288	296	434	383	418	594	138	420	433	630	672	713	659	429	173	531	475	617	647	169	511	678	595	454	485

NET RADIATION

Net radiation in langleys per day (8 a.m. to 8 a.m.) at Palmer, Alaska. MAY 1971

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys	172	115	104	116	170	94	136	127	184	69	102	184	110	8	171	142	125	181	59	160	80	185	184	74	223	148	130	119	18	174	291	142

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals and monthly average (~3900 A) at Ames, Iowa

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys																																

NO DATA RECEIVED

TOTAL OZONE DATA

These provisional ozone data are obtained from measurements made with a Dobson ozone spectrophotometer, and are applicable approximately to local apparent noon. The data are presented in the code form defined in the August 1962 WMO circular entitled 'PUBLICATION OF DATA FOR METEOROLOGICAL RESEARCH, WORLD OZONE DATA.

Units Milli-atmo-cms.

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean O_3

NO DATA RECEIVED

REFERENCE NOTES

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES: Dates in the table apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

+	And also on an earlier date or dates.
D	Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile data can be evaluated.

B	Number of days maximum 21.1°C. or above for Alaskan Stations.
Y	Peak Gust.
+	And also on an earlier date or dates.
U	Indicates Urban site.
R	Indicates Rural site.
Ø	Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publication.

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters

$°F. = \frac{9}{5} \times °C + 32$

1 inch = 25.4 millimeters

1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U	Indicates Urban site.
R	Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U	Indicates Urban site.
R	Indicates Rural site.

STORM SUMMARY:

°	Includes crop damage.
C	Crop damage.
*	No occurrence of storms or unusual weather phenomena reported.
@	Includes heavy sleet storm.
#	Freezing drizzle and freezing rain, commonly known as glaze.
Ø	For breakdown of All Others, and for detailed listing of other storms, see the Environmental Data Service, NOAA publication STORM DATA.
÷	No Storm Data Report received for this State.
<>	Report Incomplete.
·	Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5 Million
7	$5 Million to $50 Million
8	$50 Million to $500 Million
9	$500 Million to $5 Billion.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1/	Flooding continued at the end of the month.
NA	Not available.

FLOOD STAGE DATA:

#	Highest Stage Observed
1/	Continued at end of month
___	Highest Stage of Record
E	Estimated
P	Provisional (Flood Stage)
U	Unknown

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

*	Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
+	Observations for these stations are scheduled at 0000 G.C.T.
†	Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

REFERENCE NOTES

SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

()	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
*	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeterminable
BD	Blowing Dust	F	Fog	I	Intense Haze-indeterminable		
BN	Blowing Sand	GF	Ground Fog	K	Smoke	N	Sand
D	Dust	H	Haze	KI	Intense Smoke	S	Slight Haze-indeterminable
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		

SOLAR RADIATION TOTALS: Langley is the unit used to denote one gram calorie per square centimeter.

* Values with an asterisk are interpolated.
Data are only for those stations equipped with Eppley Model II sensors.

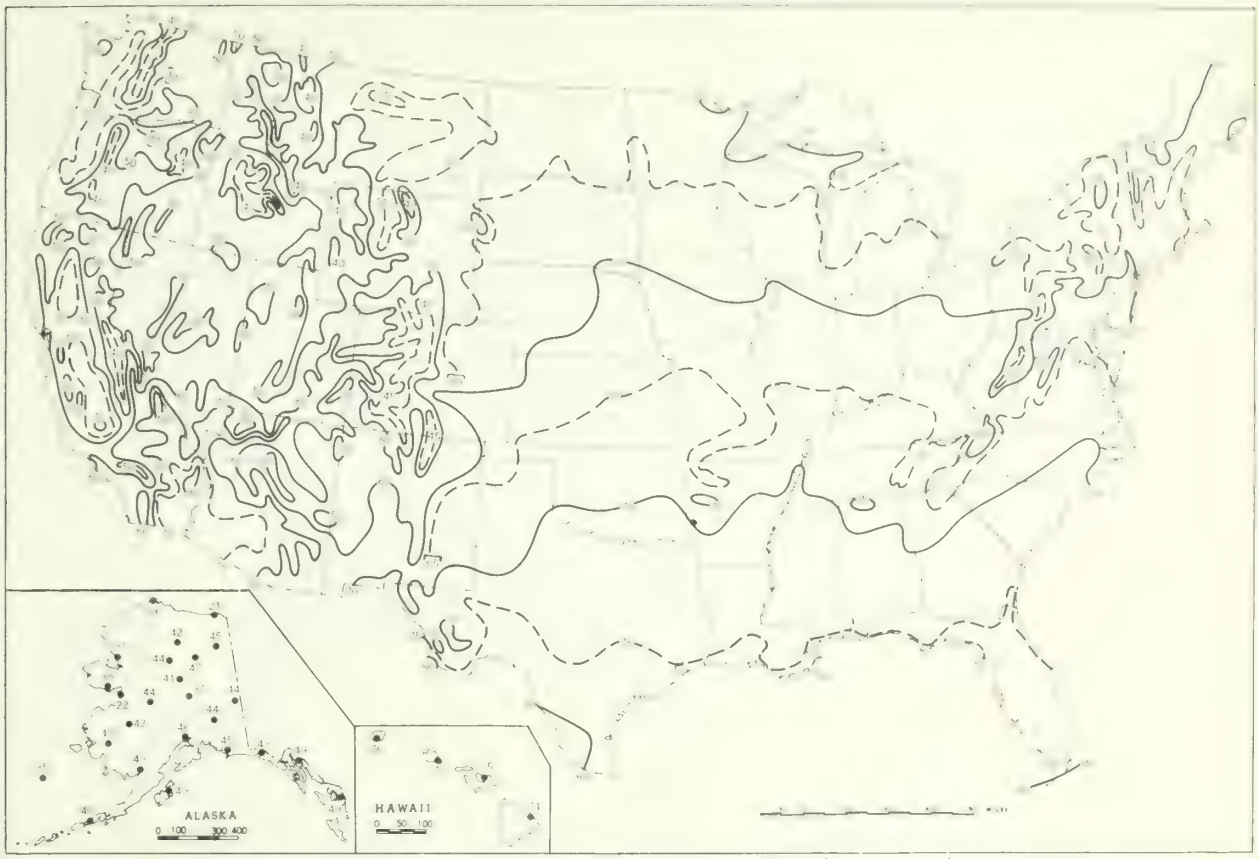
NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded Ω Ω Ω) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code $_{\lambda}$S designates the type of measurement made.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), May.



B. Temperature Departure from 30 - Year Mean (°F 1941-70), May 1976

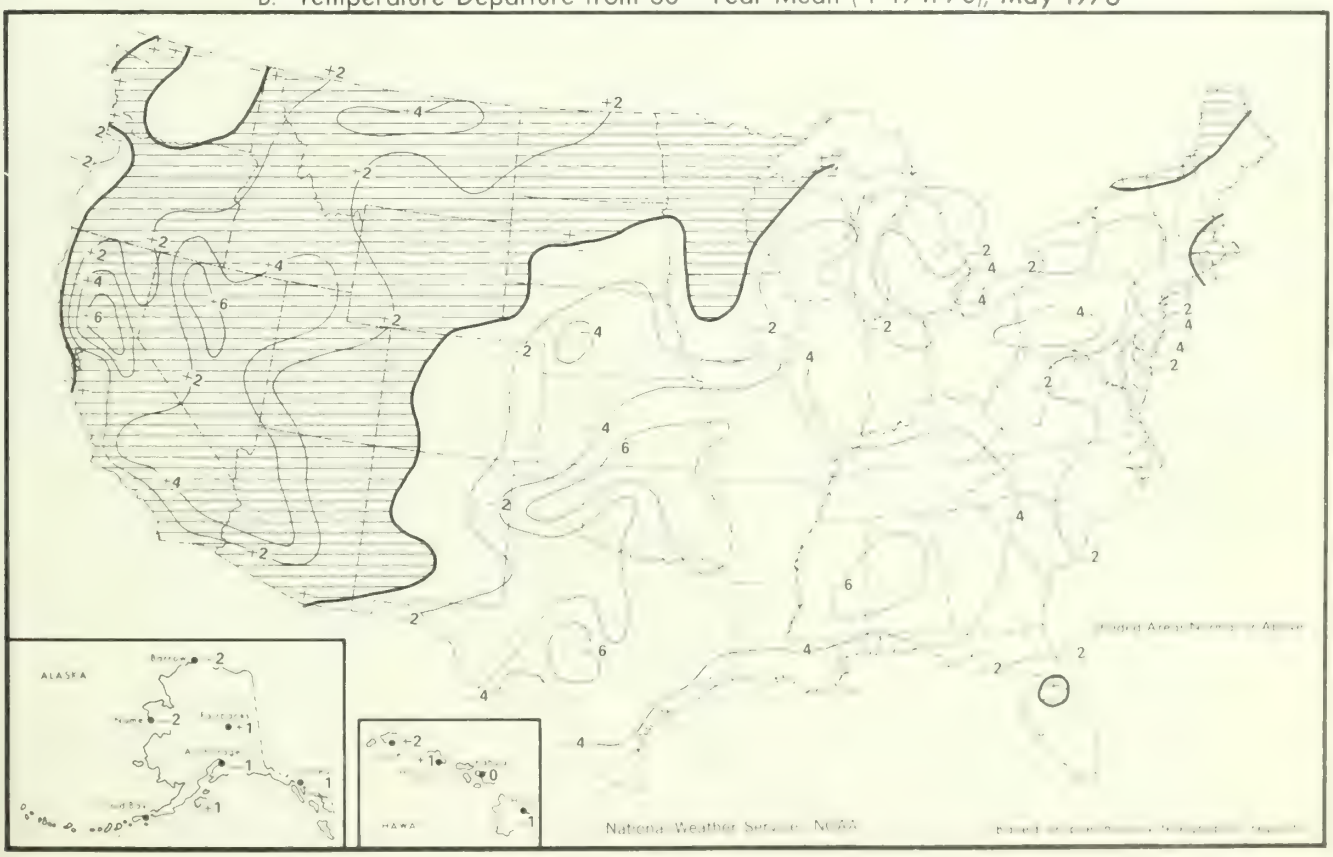


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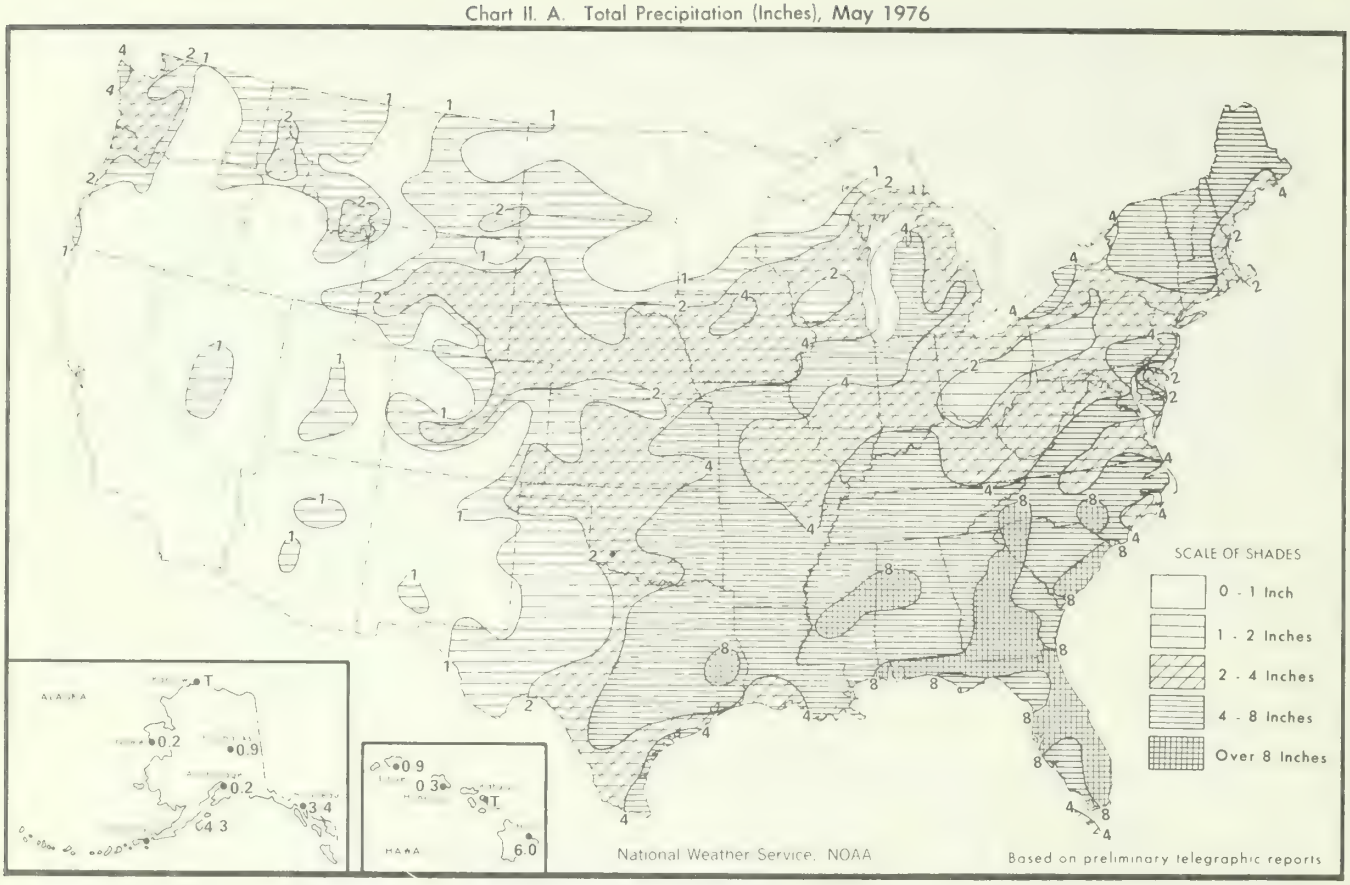
Chart II. A. Total Precipitation (Inches), May 1976



B. Percentage of Normal Precipitation, May 1976

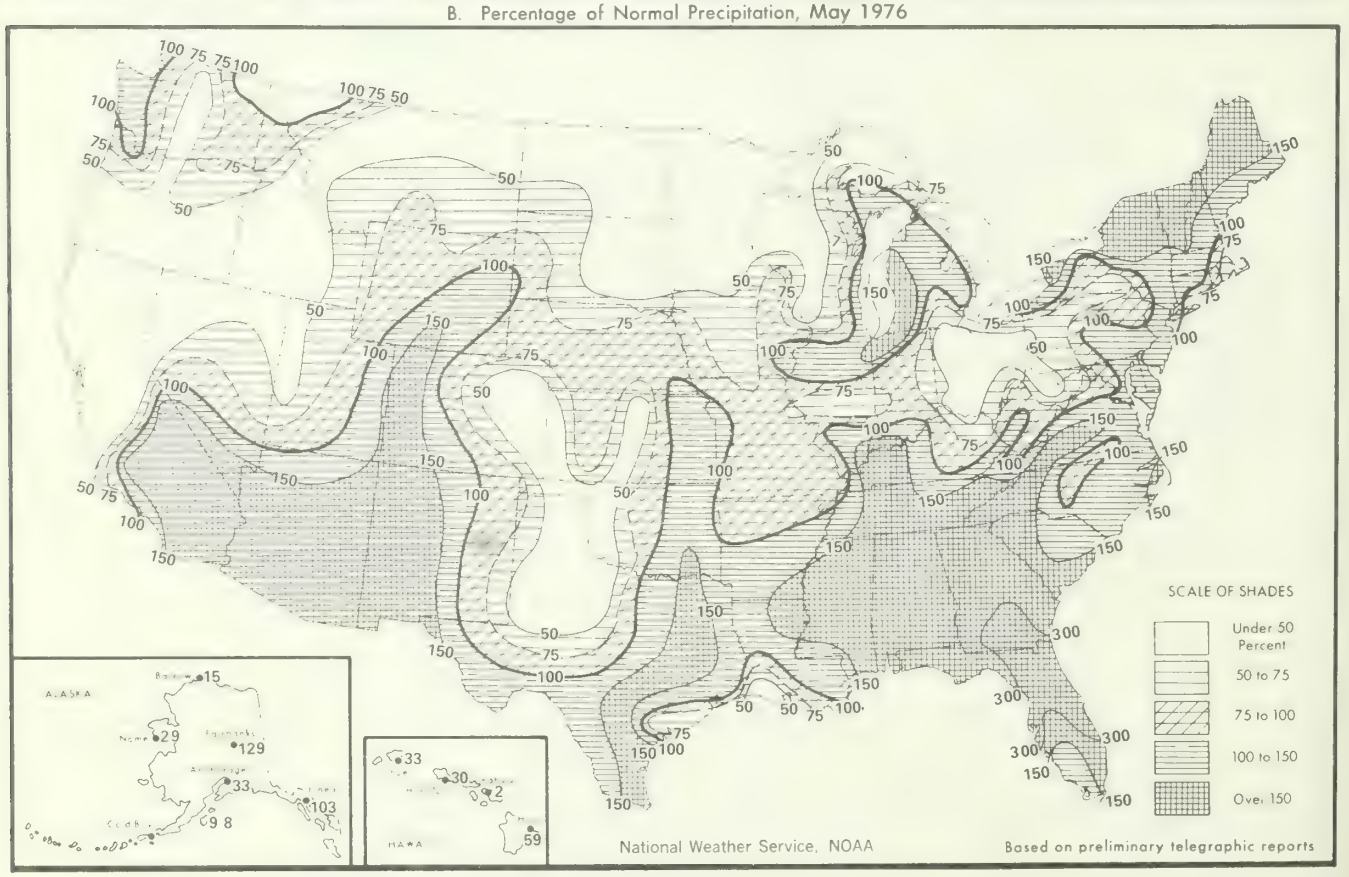
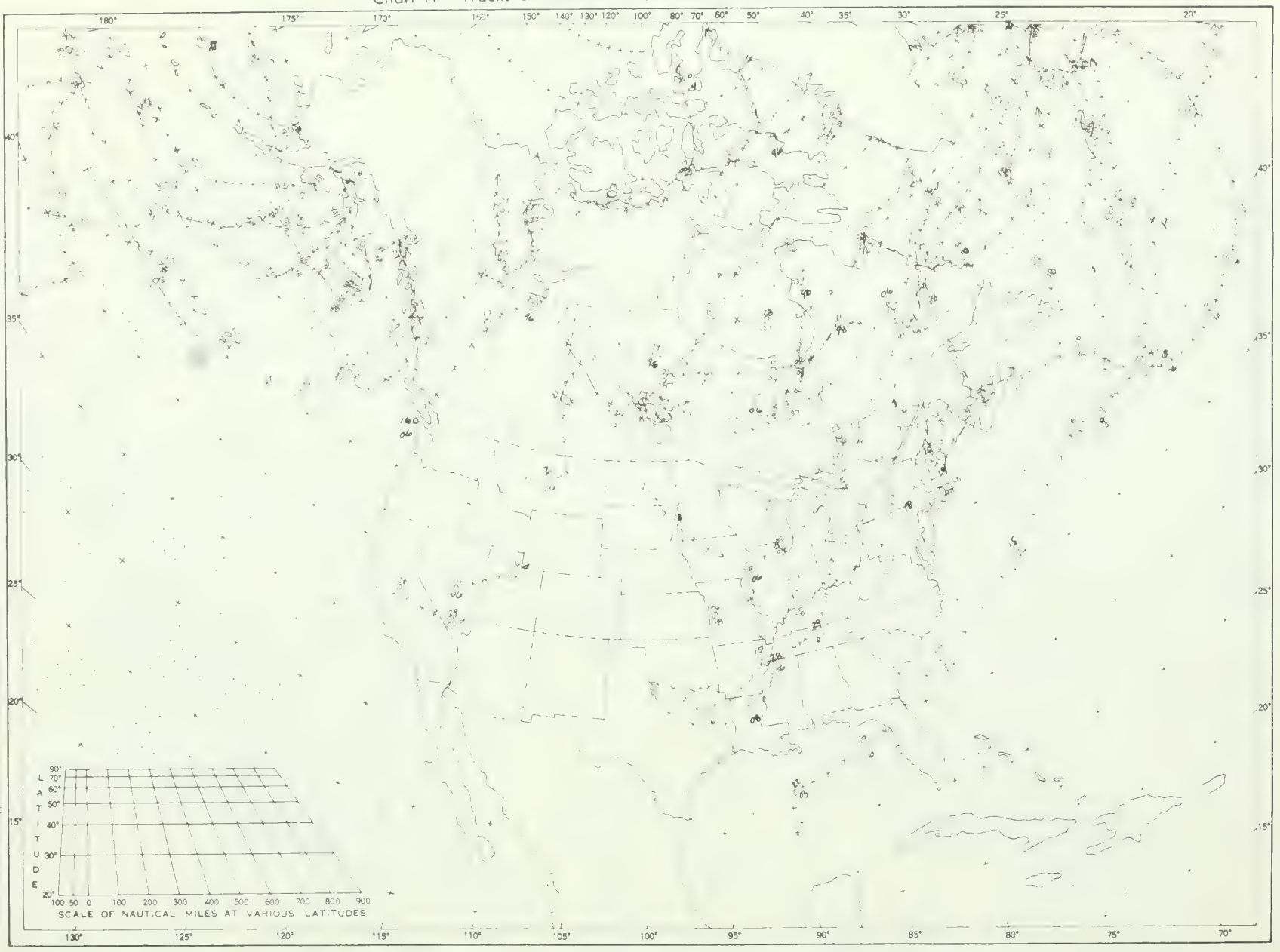


Chart III Tracks of Centers of Anticyclones at Sea Level, May 1976

Circle indicates position of center at 1200 G.M.T. Figure above circle indicates sea-level pressure in central millibars. X's indicate intervening 6-hourly positions. Squares indicate position of station any reason for period shown. Dotted line to track indicates intermediate or low position. Only those centers which could be identified for 24 hours or more are included.

Chart IV Tracks of Centers of Cyclones at Sea Level, May 1976



Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. X's indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

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JUNE 1976 VOLUME 27 NUMBER 6

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

JUNE 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

HIGHLIGHTS: June precipitation encompassed all of the United States, except some small areas in the desert Southwest. From northeast Texas to Michigan and eastward, rainfall was normal or above normal. Rainfall was also above normal in northern portions of the Rockies and Minnesota. Moisture brought considerable relief to Minnesota in the drought-stricken northern Plains, but dryness persisted in southeast North Dakota, eastern South Dakota, and north central Nebraska. Wisconsin and southern Minnesota also suffered from dry conditions. Mean temperature was below normal in most of the Nation. Only the area from the northern Plains through the Great Lakes region and into New England was warmer than normal. Readings in the drought area of the northern Plains ran 3 to 5° above normal.

Precipitation in the first week of June concentrated on the area southeast of a line from eastern Texas northward into Montana. Dry areas in the western Dakotas, north central Nebraska, Minnesota, and parts of Wisconsin recorded no rain. A few showers fell in northern California, but the rest of the State remained dry. Severe weather was common in the eastern precipitation areas, but little damage was reported. Average temperature was above normal from Arizona to Wisconsin and westward through most of the Rockies. North Dakota averaged 12 to 15° above normal. The East and Far West measured below normal readings.

The second week of June brought rain to the moisture-starved areas of the northern Plains. Except for north central Minnesota, where over 2 inches fell, amounts were minimal and only relieved dryness somewhat. Average weekly temperatures that again ranged up to 12° above normal in the drought area increased moisture demand. Precipitation extended westward to the Coast, and even California recorded some light rain in all but the desert area. Elsewhere, light showers fell along the Appalachians and moderate to heavy rain occurred in southern Florida. Temperature nationwide averaged below normal in the South and West and above normal elsewhere.

In the week following mid-June, rain dampened the entire Nation, except the Southwest and a strip just east of the Rockies. Heavy rain in the East focused on the lower Mississippi Valley, southern coastal areas, and along the Appalachians. The central drought area again received timely but inadequate rains. However, the extreme heat eased in the Nation's midsection, and temperature that averaged about 3° below normal reduced moisture demand. Readings were above normal along the West Coast and in the Northeast and below normal across the rest of the country. Contrasting temperatures early in the week put Palm Springs, CA at 102° and Alamosa, CO, at 27° on the same morning.

Precipitation in the last week of the month favored nearly all of the Nation. The only rainless areas were western Oregon, California, southern Nevada, and southwestern Arizona. The drought area in the upper Plains grew smaller, but some portions remained critically dry. Extreme drought in California sharply cut into stockwater supplies and increased the fire danger. Temperature averaged well above normal in California and above normal in the Great Lakes area and Northeast. The rest of the Nation, from Washington to Florida, was cooler than normal.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	Brewton 3 SSE	97	27+	Sylacauga	44	6	Belle Mina 2 N	10.10	Elrod	1.13
Alaska	Copper Center	85	28	3 Stations	23	29-	Mac Leod Harbor	10.04	Port Clarence	.07
Arizona	2 Stations	119	26-	4 Stations	20	19-	Williams	1.20	81 Stations	.00
Arkansas	Hector	97	28	Huntsville	43	20	Langley	12.86	Fayetteville Exp. Sta	1.17
California	Mecca Fire Station	120	27	Adin Ranger Station	12	1	Deer Creek Forebay	1.95	84 Stations	.00
Colorado	La Junta [illegible] AP	105	21	Climax	10	19	Leroy 5 WSW	2.87	2 Stations	T
Connecticut	Hartford WSO AP	93	24-	Coventry	35	13	Putnam Lake	4.55	Groton	1.19
Delaware	2 Stations	98	28	Bridgeville 1 NW	43	6	Wilmgton Porter Reservoir	4.31	Milford 2 WSW	.85
Florida	Perry	99	14+	2 Stations	54	9+	Naples 2 NE	14.50	Cedar Key 1 WSW	1.29
Georgia	Dublin 3 S	98	27+	Blairsville Exp. Station	39	7+	Jesup 8 S	12.29	Siloam	1.22
Hawaii	2 Stations	90	23+	Mauna Loa Slope Obs.	34	13	Mount Waialeale 1047	22.68	15 Stations	.00
Idaho	Brownlee Dam	106	30	Stanley	15	26	Fenn Ranger Station	4.46	Featherville	.06
Illinois	4 Stations	97	13	2 Stations	42	4-	Cairo WSO CI	8.95	Mason City 1 NW	66
Indiana	Logansport Radio WSAL	100	12	Lagrange Sewage Plant	41	3	Crawfordsville Power Plant	10.44	Hobart	1.96
Iowa	Carroll 2 SSW	100	11	Elkader 5 SSW	37	3	Cumberland	7.98	Castana Exp. Farm	.34
Kansas	Johnson 11 ESE	107	28	Atwood	38	16	Chanute FAA Airport	7.41	Elkader	.00
Kentucky	Greenville 2 W	98	13	Vanceburg	38	6	Albany 4 N	12.99	Lexington WSO AP	3.34
Louisiana	2 Stations	97	29+	Ashland 2 S	52	21	Alexandria	10.04	St. Francisville 6 SE	.54
Maine	Orono	96	24	Haynesville	28	13	Moosehead	5.96	Newcastle	1.16
Maryland	Elkton	97	28	2 Stations	39	5-	Unionville	7.65	2 Stations	.63
Massachusetts	Chester 2	96	16-	Barre Falls Dam	32	13	Chester 2	4.39	Newburyport	24
Michigan	Monroe	95	15	Vanderbilt 11 ENE	28	2	Mott Island Isle Royale	6.32	Port Inland	.61
Minnesota	Browns Valley	100	11	Meadowlands 9 S	32	2	Isle 8 N	9.58	Luverne	.79
Mississippi	Columbia	97	28	University	48	7	Greenwood FAA AP	8.97	Hazlehurst 4 SW	1.26
Missouri	2 Stations	97	14-	Berryman 6 NW	37	21	Puxico	10.14	Sullivan 3 SE	.94
Montana	Great Falls WSO AP	99	30	2 Stations	23	26	Culbertson	8.87	Libby Dam	.89
Nebraska	3 Stations	102	12+	Agate 3 E	31	14	Pawnee City	4.44	Valentine WSO AP	.44
Nevada	Sunrise Manr Las Vegas	116	29+	2 Stations	18	14	Orovada	1.48	13 Stations	.00
New Hampshire	Durham	95	10-	Mount Washington	23	12	Mount Washington	9.07	Greenland	.55
New Jersey	2 Stations	97	27-	2 Stations	38	5-	Midland Park	9.65	Tuckerton	.57
New Mexico	Jal	108	22	3 Stations	20	15+	Lake Maloya	3.13	8 Stations	.00
New York	NY Westerleigh Stat IS	95	28	2 Stations	28	2	Lindley	10.23	Greenport Power House	1.20
North Carolina	Raleigh-Durham WSO AP	97	12	4 Stations	34	6	Blowing Rock	14.16	Raleigh-Durham WSO AP	2.55
North Dakota	Oakes 2 S	101	12	La Moure 2 W	32	18	Center	6.51	McLeod 3 E	1.22
Ohio	Toledo Blade	97	10	Chippewa Lake	39	4	Portsmouth U. S. Grant Br.	8.78	Hoytville 2 NE	1.65
Oklahoma	2 Stations	105	28	Jay	42	20	Hee Mountain Tower	5.87	Leedey	.00
Oregon	2 Stations	104	30+	Brothers	12	2	Brightwood	3.32	Arlington	.01
Pennsylvania	Marcus Hook	98	28	Clermont 4 NW	31	5	Philipsburg FAA AP	10.23	Neshaminy Falls	1.68
Puerto Rico	2 Stations	94	29+	2 Stations	55	14-	San Sebastian 2 WNW	15.87	Puerto Real	.00
Rhode Island	Providence WSO AP	93	24-	Kingston	34	3	North Foster 1 E	1.89	2 Stations	.78
South Carolina	Ridgeland 3 NE	97	29	Union 8 SW	40	6	Conway	13.58	Antreville	2.52
South Dakota	Porcupine 16 NW	106	10	Deerfield 4 NW	24	18	Spearfish 1 W	14.01	Kennebec	.17
Tennessee	Murfreesboro 5 N	94	30	Mountain City 2	35	6	Samburg Wildlife Refuge	10.37	Savannah	2.00
Texas	Pecos	115	23	2 Stations	45	1	Houston-Westbury	16.32	Red Bluff Dam	.00
Utah	Saint George	108	28	Scofield	15	14	Bear River Bay	3.22	19 Stations	.00
Vermont	Montpelier FAA AP	93	8	West Burke	30	13	Mount Mansfield	8.28	Ball Mountain Lake	1.25
Virginia	3 Stations	96	13+	Floyd 2 NE	33	6	Independence 2	11.53	Washington Nat'l WSO AP	1.21
Virgin Islands	3 Stations	89	30+	Annaly	68	15	Granard	3.94	Tague Bay	1.79
Washington	2 Stations	102	29-	Rainier Paradise RS	20	3+	Quinault RS	8.27	Moxee City 10 E	.00
West Virginia	Madison	95	19	Seneca State Forest	31	6-	Racine Locks and Dam	6.85	Gary	1.59
Wisconsin	3 Stations	96	12+	Madeline Island	28	1	Park Falls	5.54	Green Bay WSO AP	.31
Wyoming	Basin	101	30	Darwin Ranch	18	26	Alva 5 SE	7.86	Wamsutter 1 N	.20

CLIMATOLOGICAL DATA

METRIC UNITS

JUNE 1976

State and Station	Elevation (ground)	Pressure		Temperature										Average relative humidity	Precipitation							Wind				No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max 32.2 °C or above	No. of days: Min 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: 25 mm or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Fastest mile (1.6 kilometers): Direction	Fastest mile (1.6 kilometers): Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ALABAMA	m	mb	mb	C	C	C	C	C		C				%	mm	mm	mm			mm	mm	m/s		m/s							%
BIRMINGHAM	189	994.2	1016.4	29.6	17.6	23.6	-1.7	33.9	13	11.1	7	7	0	18.3	74	70	-32	45	5	5	0	0	0.4	13	9.4	S	1	4	15	11	6.3	59
HUNTSVILLE	190	993.9	1016.6	28.6	17.3	22.9	-2.0	32.8	14+	12.2	7	6	0	17.2	74	185	85	65	11	10	0	0	0.9	15	15.6	32	29	6	14	10	5.9	
MOBILE	64	1008.1	1016.0	31.8	21.3	26.6	-0.3	35.0	13	16.1	7	18	0	19.4	69	120	-35	44	9	8	0	0	0.9	15	9.4	S	30	10	8	12	5.6	
MONTGOMERY	59	1009.1	1016.4	30.9	19.1	25.0	-1.1	35.0	27+	11.7	8	15	0	17.2	67	70	-33	21	8	7	0	0	0.5	16	17.0	NW	30	8	16	6	5.2	74
ALASKA												8																			
ANCHORAGE	35	1009.5	1014.3	16.5	7.6	12.1	-0.5	22.2	29+	3.9	3+	3	0	6.1	68	9	-19	5	4	0	0	0	1.9	23	11.2	17	14	6	9	15	6.6	69
ANNETTE	34	1012.5	1016.7	16.1	8.6	12.3	-0.2	23.9	15	5.6	4	3	0	6.7	71	113	-15	24	15	0	0	0	0.9	18	9.4	17	13	2	5	23	8.5	
BARROW	9	1014.6	1014.9	3.3	-1.7	0.8	0.3	15.0	23	-5.0	1	0	27	-0.6	91	8	-1	3	9	0	T	25	1.4	8	10.7	10	3	1	7	22	8.5	
BAXTER ISLAND	12	1013.5	1015.3	4.0	-1.8	1.1	-0.1	20.0	26	-5.0	29	0	26	0.0	92	12	-2	5	5	0	23	152	3.0	8	13.4	9	2	2	10	18	7.6	
BETHEL	38	1009.1	1015.0	14.6	4.8	9.7	-1.2	26.1	12	+0.6	9+	4	3	4.4	76	14	-17	5	13	1	T	T	1.9	25	13.4	18	12	3	6	21	8.1	
BETTLES	196	988.2	1012.3	18.8	8.7	13.8	0.3	25.6	14+	1.7	7	11	0	5.6	60	34	3	8	8			0	0	0.8	21							
BIG DELTA	386			19.7	9.2	14.4	0.5	25.6	14	4.4	1	14	0			33	-23	13	9			0	0									
COLD BAY	29	1011.9	1015.5	10.2	3.8	7.0	-0.4	18.3	11	0.0	12	0	1	4.4	85	68	22	52	12	0	0	0	1.8	19	22.8	16	4	1	5	24	8.8	
FAIRBANKS	133	995.3	1012.0	20.6	10.1	15.3	0.3	27.2	15	6.7	20+	14	0	5.6	55	27	-9	9	8	1	0	0	1.2	27	10.7	25	27	5	10	15	6.7	
GULKANA	479			19.4	6.1	12.8	0.4	25.6	28+	0.0	1	9	1			14	-20	6	4			0	0									
HOMER	19	1011.5	1014.3	13.4	4.4	8.9		20.0	30	0.6	2+	0	0			17	-10	12	4	0	0	0	2.3	25	10.3	10	16	9	7	14	5.7	
JUNEAU	4	1014.9	1015.6	15.2	6.9	11.1	-0.7	22.8	16	2.2	1	3	0	7.2	79	86	11	26	16	0	0	0	0.3	10	9.4	12	18+	0	5	25	8.9	25
KING SALMON	15	1012.5	1014.5	13.4	3.1	8.3	-2.1	21.7	11	0.6	25+	1	0			34	-3	17	15	1	0	0	2.0	21	11.2	11	13	1	8	21	8.3	
KODIAK	4	1010.8	1015.1	14.7	6.4	10.6	0.7	22.8	26	2.2	1	2	0	6.1	78	110	6	55	11	0	0	0	1.3	5	10.3	5	14+	9	3	18	6.7	
KOTZEBUE	3	1012.9	1013.2	7.4	0.8	4.1	-2.3	18.3	25	-1.1	9+	0	7	1.7	86	17	4	7	9	0	T	T	2.7	26	13.4	29	9	4	11	15	7.1	
MC GRATH	105	1000.7	1013.2	18.8	7.1	13.0	-0.2	26.7	14	1.1	8	11	0	5.6	64	24	-19	10	11	2	0	0	0.8	25	11.2	7	14	2	9	19	7.8	
NOME	4	1012.9	1013.8	9.2	2.3	5.8	-1.7	21.1	12	-2.8	4	1	4	2.2	79	30	6	20	9	0	T	0	1.4	19	9.8	12	1	7	7	16	6.8	33
ST. PAUL ISLAND	7			6.9	1.9	4.4	-0.6	12.2	22	-1.1	10	0	6			23	-9	13	12	0	0	T			12.5	9	4	1	3	26	8.9	
SUMMIT	731			15.9	4.9	10.4	1.0	23.3	27	1.1	8+	3	0			13	-43	8	4	0	0	T			8.0	22	17	6	8	16	6.9	
TALKEETNA	105	1000.7		19.8	6.7	13.3	0.5	27.8	26	-1.1	1	14	1			35	-20	14	9	2	0	0	1.5	19	9.4	16	3					
UNALAKLEET	5																	19			0	0			11.2	32	9					
WAINWRIGHT	7			15.4	7.7	11.6	0.9	21.1	25	5.6	2+	1	0			25	-43	8		0		0			6.3	28	25+					
YAKUTAT	9	1014.9	1015.9	12.7	6.4	9.6	-0.3	16.1	23	1.1	21	0	0	7.2	83	62	-82	22	14	0	0	0	0.3	25	6.7	29	28+	2	3	25	8.7	
ARIZONA																																
FLAGSTAFF	2135	788.4	1012.4	26.2	3.7	14.9	0.4	32.8	28	-2.8	12	2	5	-4.4	27	T	-14	T	0	0	0	0	1.8	21	13.4	SW	22	24	5	1	1.7	95
PHOENIX	339	969.2	1006.9	38.8	23.3	31.1	1.8	45.0	27	18.3	13+	28	0	0.6	15	2	-1	2	1	2	0	0	0.8	25	21.5Y	SE	29	28	2	0	.8	96
TUCSON	788	921.8	1007.0	37.3	19.7	28.6	0.7	42.2	27	12.2	11	29	0	2.8	20	3	-3	3	1	2	0	0	1.3	21	15.6	SE	29	26	3	1	1.2	96
WINSLOW	1492	850.7	1010.9	32.5	11.3	21.9	-0.2	37.8	28	4.4	15+	21	0	-3.9	20	4	-3	3	2	3	0	0	2.7	20	15.6	19	22	23	4	3	1.9	
YUMA	59	1000.0	1007.2	39.4	21.8	30.6	0.7	45.6	27	13.9	11	28	0	5.6	22	0	0	0	0	0	0	0	1.7	24	10.3	NW	24+	30	0	0	.6	100
ARKANSAS																																
FORT SMITH	136	998.6	1015.1	28.6	16.7	22.7	-2.9	32.2	29+	10.6	20	2	0	16.7	72	117	18	44	7	6	0	0	0.8	11	12.5	N	29	11	10	9	5.2	67
LITTLE ROCK	78	1006.4	1015.7	29.1	18.1	23.6	-2.1	33.3	28	13.9	21+	5	0	17.8	73	167	78	76	12	6	0	0	0.4	21	10.3	NW	15	9	11	10	5.9	62
CALIFORNIA																																
BAKERSFIELD	145	994.2	1011.4	34.1	18.8	26.5	1.6	45.6	28	13.3	12+	14	0	7.2	33	1	-1	1	1	0	0	0	2.7	33	10.3	2	18+	23	6	1	1.5	
BISHOP	1252	871.0		31.6	9.8	20.7	-0.2	37.8	27	2.2	11	16	0			4	2	4	1		0	0			19.2Y		28+	19	7	4	2.9	
BLUE CANYON	1609	839.1	1012.4	20.1	9.4	14.8	-0.3	28.9	27	3.3	10+	0	0	-1.7	37	10	-15	6	2		0	0	1.2	18	8.0	20	20					
EUREKA U	13			14.3	8.7	11.6	-1.3	20.0	29	6.1	1	0	0			4	-13	2	4		0	0			13.0	N	16	9	8	13	5.7	53
FRESNO	100	1000.3	1011.8	32.1	13.4	22.7	-0.6	40.6	28+	8.3	4	15	0	7.2	41	9	-8	9	1	0	0	0	2.5	29	12.5	NW	30	24	6	3	2.4	42
LONG BEACH	8	1010.8	1012.1	28.2	16.2	22.2	2.6	40.0	27	11.7	12	8	0	15.0	70	4	3	4	1	0	0	0	1.4	23	8.0	28	27+	18	9	3	2.8	
LOS ANGELES	30	1008.5	1012.0	23.9	16.1	20.0	1.9	37.2	24	12.8	11	2	0	14.4	75	7	6	7	1	1	0	0	2.9	25	13.9Y	W	26	19	8	3	3.0	
LOS ANGELES	82			27.5	15.9	21.7	1.7	38.9	27+	11.7	10	7	0			6	5	6	1		0	0			7.2	SW	26	20	8	2	2.3	69
MT SHASTA R	1080	892.0	1014.9	22.9	6.7	14.8	-0.8	32.2	28	0.0	1	1	1	1.7		11	-17	5	3		0	0	1.1	33								
OAKLAND	2	1014.2	1014.5	22.2	12.6	17.4	0.8	33.3	28+	10.0	4+	4	0	11.1	72	3	-1	2	2	0	0	0	3.7	28	11.2	32	30+	15	9	6	3.5	
RED BLUFF	104	999.7	1012.1	32.7	16.4	24.6	0.4	42.2	28	7.2	1	16	0	3.9	30	1	-11	1	1	0	0	0	0.1	3	13.0	S	29	18	4	8	3.6	67
SACRAMENTO	5	1011.2	1012.1	32.2	14.3	23.3	1.9	41.7	28	8.9	3	13	0	6.7	40	1	-2	1	1	0	0	0	2.6	23	12.5	NW	13	20	10	0	2.1	100
SANDBERG R	1377	861.8		24.6	12.1	18.3	0.6	34.4	28+	3.9	10	4	0			1	1	1	1		0	0			14.3	33	22+					
SAN DIEGO	4	1011.2	1012.4	24.2	17.7	20.9	2.3	34.4	26	15.0	10	2	0	14.4	70	1	-1	1	1	0	0	0	2.1	27	7.6	W	26+	19	8	3	3.4	78
SAN FRANCISCO	2	1013.9	1014.4	23.1	11.5	17.3	0.9	36.1	27+	8.3	4	7	0	7.2	59	T	-3	T	1	0	0	0	5.1	28	13.4	28	12	18	5	7	3.5	
SAN FRANCISCO	16			20.4	12.3	16.4	1.6	35.0	24	9.4	8+	3	0			1	-4	1	2													
SANTA MARIA	72			24.6	9.5	17.1	1.7	38.9	25+	3.9	3	7	0			1	0	1	2		0	0						20	8	2	2.7	
STOCKTON	7	1011.5	1012.6	31.3	13.9	22.7	0.6	41.1	28	9.4	6+	14	0	6.7	43	1	-1	1	1	0	0	0	4.2	30	11.2	27	29	18	11	1	2.7	
COLORADO																																
ALAMOSA	2297	773.5		25.1	3.7	14.4	-0.9	29.4	27+	-2.8	15	0	4			2	-11	1	3		0	0						16	10	4	3.8	

CLIMATOLOGICAL DATA

METRIC UNITS

JUNE 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m s		m s							%
COLORADO																																
COLORADO SPRINGS	1873	811.4	1011.4	25.9	10.0	17.9	-0.2	33.3	22	5.6	14	4	0	2.8	44	62	4	35	8	10	0	0	0.7	9	16.5	33	14	14	11	5	4.4	
DENVER	1610	835.8	1010.3	27.8	10.3	19.1	0.2	34.4	27	2.8	19	6	0	1.7	38	16	-33	6	7	9	0	0	1.4	20	16.1	SW	22	12	13	5	4.7	77
GRAND JUNCTION	1476	850.3	1009.6	30.4	12.3	21.3	-0.5	36.7	29+	1.1	14	13	0	-1.1	26	4	-10	1	5	5	0	0	1.1	14	20.1	SW	22	16	9	5	3.7	86
PUEBLO	1428	854.0	1009.8	30.7	10.8	20.8	-0.7	37.8	28+	5.0	15	14	0	4.4	42	34	-1	23	5	4	0	0	0.4	34	19.2	S	4	15	10	5	4.1	90
CONNECTICUT																																
BRIDGEPORT	2	1016.9	1017.4	25.8	16.8	21.3	1.4	32.2	10	7.2	4	1	0	15.6	72	67	2	30	11	5	0	0	2.4	21	11.2	21	16	3	13	14	7.0	
HARTFORD	52	1010.2	1016.5	28.9	16.2	22.6	2.7	33.9	24+	7.2	13	9	0	15.6	69	73	-17	31	14	5	0	0	1.8	20	13.0	W	25	2	13	15	7.1	55
DELAWARE																																
WILMINGTON	23	1014.6	1017.5	27.7	17.1	22.4	0.6	33.3	28	7.8	6+	4	0	16.1	68	54	-28	34	7	6	0	0	1.8	21	9.8	19	30	8	6	16	6.5	
DIST.OF COLUMBIA																																
WASHINGTON DULLES	88	1005.4	1017.0	27.8	15.0	21.4	-0.3	31.7	28+	3.9	6	0	0	16.1	74	73	-19	30	8	7	0	0	1.7	18	10.3	27	30	8	7	15	6.3	
WASHINGTON NATIONAL	3	1014.9	1017.3	30.6	20.1	25.3	1.7	35.0	28+	11.7	6	13	0	15.6	58	31	-58	20	7	3	0	0	2.2	18	14.3	S	20	8	8	14	6.3	68
FLORIDA																																
APALACHICOLA U	6	1015.9	1016.4	29.4	21.0	25.2	-1.4	32.2	13	17.2	7	1	0	21.1	79	203	69	68	10	12	0	0	0.9	17	9.4	N	4	8	14	8	5.6	
DAYTONA BEACH	9	1015.6	1017.0	29.2	21.3	25.2	-1.1	32.8	30	18.3	12	1	0	20.6	79	283	115	117	18	12	0	0	1.4	10	10.7	35	5	4	10	16	6.9	
FORT MYERS	5	1016.3	1016.5	30.5	21.5	26.0	-1.3	32.2	28	19.4	1	1	0	20.0	74	269	43	39	19	21	0	0	1.1	10	9.4	31	3	0	17	13	7.2	
JACKSONVILLE	8	1016.3	1017.2	29.7	19.7	24.7	-1.6	32.8	12	15.0	9	6	0	20.6	80	108	-51	49	13	12	0	0	1.1	12	12.1	SW	2	4	9	17	7.1	68
KEY WEST	1	1014.9	1015.7	29.5	24.6	27.1	-1.6	30.6	21+	22.2	4	0	0	21.1	72	260	144	72	15	10	0	0	3.0	13	15.2	S	23	2	10	18	7.5	84
LAKELAND U	65			31.3	20.9	26.2	-0.8	33.9	28+	18.9	2	13	0			235	65	71	17		0	0						0	18	12	6.9	65
MIAMI	2	1016.3	1016.7	28.6	23.7	26.2	-1.1	30.6	30+	21.7	24+	0	0	21.7	78	173	-56	50	15	9	0	0	2.6	11	10.7	13	19+	1	12	17	7.6	
ORLANDO/MC COY AFB	29	1013.2	1017.1	31.7	21.3	26.5	-0.3	33.3	20+	19.4	1	15	0	21.1	78	252	72	49	16	13	0	0	1.3	8	9.8	29	3	3	10	17	7.3	
PENSACOLA	34	1011.9	1016.2	30.1	20.9	25.6	-1.4	33.9	27	17.2	8	6	0	19.4	71	177	17	40	10	10	0	0	1.2	17	8.9	20	2	12	9	9	5.1	
TALLAHASSEE	17	1014.2	1016.7	31.3	19.8	25.6	-1.1	35.6	13	15.6	15+	14	0	20.0	77	280	112	85	15	16	0	0	0.9	9	14.3	20	1	7	13	10	6.0	
TAMPA	6	1016.3	1016.4	30.6	21.6	26.1	-1.1	32.2	17+	20.0	7+	2	0	20.6	74	183	19	83	13	16	0	0	1.3	10	8.0	24	17+	2	13	15	7.3	42
WEST PALM BEACH	5	1016.3	1016.9	29.1	22.1	25.6	-1.3	31.1	29	20.0	23	0	0	21.1	77	115	-92	40	17	8	0	0	2.3	12	9.4	13	19	0	17	13	7.2	
GEORGIA																																
ATHENS	244	988.2	1016.8	28.6	18.0	23.3	-1.6	33.3	13	10.6	6	2	0	17.8	75	63	-46	23	9	11	0	0	0.4	11	9.4	21	1	6	8	16	6.7	
ATLANTA	308	980.4	1016.6	28.7	17.8	23.2	-1.0	33.9	12	12.2	6	4	0	16.7	72	60	-33	15	12	10	0	0	0.5	16	13.0	7	10	3	11	16	6.7	54
AUGUSTA	41	1011.9	1017.0	30.2	17.9	24.1	-1.6	34.4	13	10.6	7+	6	0	18.9	78	121	28	30	14	13	0	0	0.8	12	10.3	31	30+	6	8	16	6.9	
COLUMBUS	117	1002.7		30.3	19.0	24.7	-1.3	33.9	27+	12.2	7	11	0	18.3	72	175	70	86	11	11	0	0	0.7	9	10.3	25	1	8	11	11	5.8	
MACON	108	1004.1	1017.0	31.1	18.3	24.7	-1.7	35.6	27	11.1	7	15	0	18.3	76	77	-21	27	11	7	0	0	0.7	13	12.1	NW	30	6	8	16	6.6	58
ROME	194			29.2	16.7	23.0	-1.3	33.3	13	8.3	6	4	0			121	26	53	12		0	0										
SAVANNAH	14	1015.9	1017.9	29.3	19.3	24.3	-1.8	33.3	30	13.9	8	5	0	19.4	81	190	41	48	18	12	0	0	0.6	14	12.1	NW	30	3	7	20	7.6	49
HAWAII																																
HILO	8	1015.9	1017.3	26.9	19.3	23.1	-0.6	28.9	6+	17.2	4	0	0	18.9	80	75	-92	9	23	0	0	0	0.6	13	8.9	E	5	0	13	17	7.6	47
HONOLULU	2	1016.3	1016.5	29.6	21.7	25.7	-0.4	31.1	23	18.9	6	0	0	16.1	58	5	-4	4	5	0	0	0	4.6	7	12.5	E	18	2	17	11	6.5	56
KAHULUI	15	1013.5	1016.0	29.3	19.3	24.3	-0.7	31.1	13+	15.6	4	0	0			1	-5	T	2	0	0	0	5.5	6	14.3	NE	17+	12	11	7	5.2	69
LIHUE	31	1012.5	1017.6	28.7	23.2	25.9	0.7	30.0	22	20.6	2+	0	0	20.6	72	28	-12	7	16	0	0	0	4.4	7	10.7	NE	18	0	18	12	7.3	60
IDAHO																																
BOISE	865	913.6	1012.6	25.4	8.5	17.0	-1.2	38.3	28	0.6	4	4	0	2.8	45	42	15	41	4	0	0	0	2.0	31	16.5	SW	8	11	10	9	4.6	78
LEWISTON	431			24.2	10.2	17.2	-1.1	37.8	29	3.9	4	2	0			31	-15	19	10		0	0			22.8Y		7	6	8	16	6.8	
POCATELLO	1358	860.8	1011.5	24.9	7.9	16.4	-0.1	35.6	29	0.6	14	3	0	2.2	44	25	-8	12	7	1	T	0	3.3	23	19.2	SW	10	11	12	7	4.8	76
ILLINOIS																																
CAIRO U	96			28.3	19.1	23.7	-1.7	34.4	27	14.4	22	9	0			227	116	148	11		0	0			12.1	SW	15					68
CHICAGO O HARE	201	990.9	1014.9	27.3	15.1	21.2	1.1	34.4	12	7.8	3	5	0	13.3	61	74	-31	21	10	6	0	0	0.8	22	12.5	16	13	12	5	13	5.3	
CHICAGO MIDWAY	185	992.9	1015.3	27.4	16.7	22.1	0.7	34.4	12+	8.9	3	6	0	13.3	60	166	66	118	8	7	0	0	0.8	21	17.9	E	13	13	6	11	5.0	70
MOLINE	177	993.6	1014.9	28.3	14.4	21.4	-0.2	36.1	13	8.9	20+	4	0	12.8	61	51	-61	31	9	7	0	0	1.2	21	29.1	NW	13	15	10	5	4.0	78
PEORIA	199	991.9	1015.4	28.3	14.5	21.4	-0.4	34.4	13	8.9	20	5	0	13.3	63	74	-25	59	6	4	0	0	0.8	19	15.6	NW	27	13	8	9	4.7	69
ROCKFORD	221	988.5	1015.2	27.3	13.5	20.4	0.0	34.4	13+	7.8	20	3	0	11.7	60	55	-57	32	9	6	0	0	1.0	20	13.9	23	27	12	9	9	5.1	
SPRINGFIELD	179	993.2	1015.2	29.3	15.5	22.4	-0.3	33.9	27+	8.9	20	8	0	13.3	58	36	-70	26	5	6	0	0	0.8	20	13.9	SW	15	11	11	8	5.0	71
INDIANA																																
EVANSVILLE	116	1002.0	1015.7	28.6	17.3	22.9	-0.8	33.9	14+	12.2	6	6	0	15.6	64	108	17	49	11	3	0	0	0.6	22	12.5	S	15	10	10	10	5.4	64
FORT WAYNE	241	984.8	1014.4	28.0	15.6	21.8	0.9	34.4	14+	11.1	6	5	0	13.9	64	98	-1	33	12	5	0	0	1.2	23	16.1	SW	13	7	9	14	6.0	75

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State and Station	Elevation ground	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No of days: Max 32.2 °F or above	No of days: Min 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	No of days: 25 mm or more	No of days: With thunderstorms	Snow Ice pellets: Total	Snow Ice pellets: Maximum depth on ground	Wind: Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Fastest mile (1.6 kilometers): Direction	Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear 0-3	Partly cloudy 4-7	Cloudy 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
INDIANA																																
INDIANAPOLIS	241	987.1	1015.8	27.8	15.8	21.8	-0.2	32.2	14	10.0	20	1	0	15.6	71	101	-5	30	10	7	0	0	0.9	20	13.9	N	29	10	6	14	5.9	62
SOUTH BEND	236	987.5	1015.1	27.6	15.7	21.6	1.3	33.9	12	8.9	2	4	0	14.4	66	168	73	68	11	9	0	0	1.6	25	13.4	W	29	11	10	9	5.2	
IOWA																																
BURLINGTON	211			27.7	14.2	20.9	-0.9	33.9	13	8.3	19+	3	0	13.9	62	82	-38	41	7	5	0	0	1.1	19	15.6	W	13	13	12	5	4.3	
DES MOINES	286	980.4	1014.4	27.8	15.9	21.9	0.5	32.8	13	11.1	19+	2	0	12.2	56	184	60	76	9	8	0	0	2.0	17	20.6	S	14	13	13	4	3.9	78
DUBUQUE	322	976.6		26.6	13.3	19.9	0.2	32.2	13+	8.3	3	2	0			38	-97	17	8		0	0										
SIOUX CITY	334	973.6	1012.7	28.6	13.8	21.2	-0.1	36.1	11	6.1	19	5	0	12.8	60	19	-98	16	3	3	0	0	2.8	16	18.3	SE	14	13	13	4	4.1	85
WATERLOO	265	983.1	1014.5	27.4	13.4	20.4	0.2	32.8	12	7.8	19+	2	0	11.7	58	72	-55	27	8	7	0	0	1.8	19	14.3	W	13+	11	13	6	4.4	
KANSAS																																
CONCORDIA	448	960.7	1012.4	30.1	15.3	22.7	0.2	37.2	13	8.3	19	9	0	12.2	55	41	-86	26	4	7	0	0	3.0	16	16.5	N	28	15	11	4	3.8	91
DODGE CITY	787	922.8	1011.4	31.6	15.4	23.5	0.3	40.0	28	9.4	19	15	0	11.7	52	13	-72	13	1	6	0	0	3.1	17	16.1	N	17	20	7	3	3.3	88
GOODLAND	1114	886.6	1010.7	29.6	11.8	20.7	0.1	36.1	10	8.3	27+	11	0	7.2	48	3	-72	3	1	3	0	0	1.9	17	13.9	W	14+	16	10	4	3.8	
TOPEKA	267	982.7	1013.9	29.2	16.0	22.6	-0.4	36.1	13	8.3	19	5	0	15.6	66	43	-104	25	8	10	0	0	2.1	15	15.2	SW	13	17	11	2	3.8	84
WICHITA	403	966.5	1013.3	30.2	16.1	23.2	-1.2	36.7	13	9.4	19	9	0	13.9	58	79	-35	27	6	8	0	0	3.2	16	17.0	NW	14	15	14	4	3.4	85
KENTUCKY																																
COVINGTON	265	984.8	1016.1	27.9	15.9	21.9	-0.3	35.0	14	10.6	6	7	0	16.1	72	151	54	35	13	8	0	0	1.2	20	10.3	S	29+	11	5	14	5.8	
LEXINGTON	294	981.7	1016.5	26.8	16.6	21.7	-1.1	31.7	13	10.0	6	0	0	15.6	71	85	-25	23	11	3	0	0	1.1	17	13.0	S	29	8	7	15	6.5	
LOUISVILLE	145	998.3	1015.7	27.9	17.4	22.7	-0.2	32.2	13+	11.1	6	2	0	17.8	76	120	17	25	12	7	0	0	0.8	18	15.2	SW	29	7	8	15	6.4	53
LOUISIANA																																
ALEXANDRIA	28	1011.2	1015.5	32.3	18.9	25.6	-0.3	36.1	26+	15.0	22+	18	0	19.4	73	115	15	44	13	11	0	0	0.6	11	9.4	S	30	11	12	7	4.7	
BATON ROUGE	20	1013.2	1015.7	31.3	19.7	25.5	-1.3	34.4	28	15.6	22	13	0	18.9	72	124	29	30	11	7	0	0	0.4	9	9.4	SE	24+	11	11	8	5.1	
LAKE CHARLES	3	1014.2	1015.2	30.9	20.3	25.6	-1.4	33.9	28+	16.7	9+	7	0	20.6	78	191	62	88	10	9	0	0	1.4	14	11.2	S	30	12	11	7	4.4	
NEW ORLEANS	1	1014.6	1015.3	30.9	20.4	25.7	-1.2	33.3	28	16.7	8	6	0	20.6	75	85	-35	28	8	9	0	0	1.0	13	13.0	S	30	9	12	9	5.1	41
SHREVEPORT	77	1006.1	1015.1	30.1	18.4	24.3	-2.5	32.8	29+	13.3	21	5	0	19.4	79	112	27	67	10	8	0	0	0.9	16	9.8	SW	25	11	9	10	5.2	56
MAINE																																
CARIBOU	190	991.2		24.5	11.1	17.8	2.4	31.7	24+	0.6	13	0	0			72	-14	34	14		0	0						3	8	19	7.5	
PORTLAND	13	1013.5	1015.8	25.3	12.4	18.8	2.1	33.9	24	4.4	13+	5	0	13.3	73	39	-40	13	12	5	0	0	1.7	28	13.9	NW	11	7	9	14	6.4	63
MARYLAND																																
BALTIMORE	45	1012.2	1017.6	29.5	18.1	23.8	1.3	34.4	28	9.4	6+	9	0	17.2	71	63	-33	19	7	5	0	0	1.4	21	14.3	NW	1	6	8	14	6.2	58
MASSACHUSETTS																																
BLUE HILL OBS R	192			26.4	15.0	20.7	2.1	32.8	24	7.8	13	1	0			23	-57	14	11		0	0			18.5	N	25					59
BOSTON	5	1015.6	1016.6	28.2	17.7	23.0	3.0	35.0	24	11.7	13+	11	0	15.0	66	15	-66	9	8	2	0	0	2.7	22	13.0	SW	16	7	12	11	6.4	75
WORCESTER	301	980.4		25.2	14.7	20.0	1.6	30.6	16	6.7	13	0	0	14.4	75	75	-17	28	13	3	0	0	2.2	25	9.4	SW	25	3	10	17	7.1	
MICHIGAN																																
ALPENA	210	990.2	1015.2	26.1	11.4	18.8	2.7	33.3	13	4.4	2	4	0	12.2	70	72	-1	35	9	7	0	0	0.3	17	12.5	NE	30+	9	15	6	4.4	71
DETROIT	189			28.1	17.2	22.7	2.1	33.9	13	8.3	3	8	0	13.3	55					5			1.2	23	13.0	SW	22	14				
DETROIT METRO	193	991.2	1015.1	28.3	14.6	21.4	1.3	34.4	14+	8.9	6+	7	0	14.4	67	83	-4	25	8	4	0	0	1.2	28	13.9	SW	25	10	11	9	5.2	73
FLINT	235	987.5	1015.0	26.9	14.6	20.8	2.0	32.2	14	8.9	3	1	0	13.3	64	104	17	66	9	6	0	0	1.5	28	11.6	SW	25	12	8	10	5.3	
GRAND RAPIDS	239	986.5	1015.2	27.9	13.7	20.8	1.2	32.8	13+	6.7	2	6	0	13.3	65	71	-16	41	10	6	0	0	1.2	22	10.4	SW	15	15	9	11	5.3	69
HOUGHTON LAKE	350	973.9	1015.4	25.6	12.3	18.9	1.9	30.6	9	3.3	2	0	0	12.2	68	70	-14	25	14	7	0	0	0.8	23	9.8	S	30+	9	10	11	5.3	
LANSING	256	983.7	1015.1	27.6	13.7	20.6	1.1	32.8	14	4.4	3	4	0	14.4	70	114	28	74	10	5	0	0	1.3	23	13.9	W	15+	9	10	11	5.4	73
MARQUETTE	206			23.7	11.9	17.8	2.3	32.2	10+	4.4	2	2	0			41	-46	13	8		0	0			14.3	SW	15+					71
MUSKEGON	191	992.2	1014.9	25.8	13.9	19.8	1.2	32.8	12	7.8	3+	1	0	13.3	69	36	-31	12	9	9	0	0	1.5	24	13.0	SW	15	19	8	11	5.0	
SAULT STE MARIE	220	988.2	1014.6	24.7	9.0	16.9	2.1	30.6	6	2.8	2	0	0	11.7	73	47	-37	19	10	8	0	0	0.3	18	11.6	S	14	12	7	11	5.1	62
MINNESOTA																																
DULUTH	435	962.4	1013.4	23.7	10.9	17.3	2.3	31.1	10+	3.9	2	0	0	10.0	64	156	44	43	11	11	1	0	1.0	15	17.0	SW	12	14	5	11	5.1	69
INTERNATIONAL FALLS	359	969.5	1012.	24.9	11.3	18.1	2.3	32.8	9	6.7	26	1	0	11.7	72	178	79	36	13	9	0	0	1.0	7	17.9	SW	26	12	5	13	12	6.4	
MINNEAPOLIS	256	983.1	1013.1	28.7	15.4	22.1	2.7	35.0	13+	8.3	19	8	0	11.1	52	98	-2	56	11	8	0	0	1.9	16	15.6	S	26	16	5	9	4.9	83
ROCHESTER	398	966.8	1014.6	27.6	12.7	20.1	1.2	33.3	9	6.7	4	4	0	11.7	61	30	-87	6	4	5	0	0	2.4	20	14.3	W	17	13	8	7	4.7	
ST CLOUD	313	976.3	1013.2	27.7	12.1	19.9	1.7	34.4	9	6.7	19+	2	0			123	5	41	9		0	0						14	8	8	4.8	
MISSISSIPPI																																
JACKSON	94	1004.1	1015.7	30.6	19.0	24.8	-2.5	33.9	29+	13.9	22+	13	0	20.0	79	71	-15	27	12	9	0	0	0.7	14	15.2	NW	16	12	7	11	4.8	69

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METRIC UNITS

JUNE 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m s		m/s							%
MISSISSIPPI																																
MERIDIAN	88	1005.1	1016.2	29.8	16.6	23.2	-3.0	32.8	27	11.1	7	2	0	17.8	77	94	1	45	9	8	0	0	0.4	17	8.0	33	16	10	9	11	5.4	
MISSOURI																																
COLUMBIA REGIONAL	270	983.7	1015.5	27.3	15.0	21.2	-1.6	32.2	27	9.4	19	1	0	14.4	67	45	-71	33	4	6	0	0	1.1	17	13.4	NW	28	11	11	8	5.0	75
KANSAS CITY	309	978.0	1014.0	27.8	15.8	21.8	-1.4	33.9	13	9.4	19	2	0	15.6	69	129	-12	68	9	10	0	0	2.1	17	13.4	S	10	14	11	5	4.1	82
ST JOSEPH	247			29.0	15.4	22.2	-1.1	36.1	13	7.2	19	7	0			82	-83	56	7		0	0										
ST LOUIS	163	995.9	1015.9	28.5	16.7	22.6	-1.2	33.9	27	11.7	3	4	0	15.6	67	59	-53	51	5	3	0	0	1.0	20	14.3	W	28	9	10	11	5.4	68
SPRINGFIELD	386	970.9	1015.4	27.8	14.8	21.3	-1.8	32.2	27	7.8	20	1	0	15.0	68	80	-40	62	6	6	0	0	1.6	16	11.2	SE	23+	12	11	7	4.6	71
MONTANA																																
BILLINGS	1087	889.3	1011.8	22.9	9.2	16.1	-0.9	32.2	30	5.0	15	1	0	6.1	56	69	2	27	12	8	0	0	1.6	30	17.9	NW	10	8	7	15	6.4	60
GLASGOW	696	929.9	1010.7	23.4	10.5	16.9	0.3	30.6	10+	5.0	18	0	0	9.4	64	108	39	35	15	14	0	0	1.2	34	14.8	8	22	6	12	12	6.0	
GREAT FALLS	1116	886.9	1012.7	23.1	9.1	16.1	0.1	37.2	30	5.0	1	3	0	6.1	58	104	25	37	16	8	0	0	2.1	25	16.5	SW	6	3	8	19	7.4	44
HAVRE	788	920.4		23.1	10.2	16.7	-0.1	35.6	30	5.6	18+	1	0			68	3	17	16	9	0	0	1.2	28	15.6	W	3	5	12	13	6.8	78
HELENA	1167	879.8	1014.0	20.2	7.1	13.7	-1.4	35.0	30	2.8	28+	1	0	4.4	58	70	9	15	13	11	0	0	2.5	29	20.1	SW	30	3	11	16	7.1	49
KALISPELL	904	910.6	1014.7	20.2	6.8	13.5	-0.4	33.3	29	2.2	27+	1	0	5.6	63	43	-22	8	16	2	0	0	0.8	18	13.4	25	24	2	10	18	7.5	
MILES CITY	801	918.7	1010.1	25.7	11.7	18.7	0.4	34.4	2	6.7	18+	4	0	10.0	59	87	2		14	11	0		1.2	33								
MISSOULA	972	903.5	1014.8	21.4	6.2	13.8	-1.2	33.9	29	0.0	26	1	1	5.0	61	39	-15	14	9	5	0	0	1.5	31	12.5	NW	6	6	7	17	6.9	50
NEBRASKA																																
GRAND ISLAND	561	947.5	1012.1	29.2	14.1	21.7	0.2	37.8	11	6.1	19	9	0	11.1	54	54	-58	45	6	5	0	0	2.7	17	17.9	19	11	17	10	3	3.4	
LINCOLN	359	970.9	1012.7	29.8	14.2	22.0	-0.2	37.2	13	5.6	19	8	0	12.8	59	16	-111	13	4	8	0	0	2.1	17	17.0	SW	13	16	9	5	3.9	81
NORFOLK	471			29.3	13.9	21.6	0.6	37.2	10	6.1	19	9	0			63	-61	61	5		0	0						15	9	6	4.3	
NORTH PLATTE	846	915.7	1012.1	26.4	9.7	18.1	-1.9	35.6	11	2.8	19	3	0	8.9	59	62	-34	56	4	5	0	0	1.2	15	21.9	NW	14	14	10	6	4.6	78
OMAHA	298	978.3	1013.0	30.2	14.9	22.6	0.3	37.8	11	8.3	19	10	0	14.4	62	72	-53	27	8	8	0	0	2.3	17	15.2	NW	26	11	16	3	4.2	75
SCOTTSBLUFF	1206	877.8	1010.7	28.6	11.5	20.1	1.2	36.7	10	4.4	14	8	0	7.2	49	33	-52	23	3	5	T	T	0.2	16	20.6	31	11	13	9	8	4.9	
VALENTINE	789			28.9	11.1	20.0	0.6	38.3	10	1.1	18	9	0			11	-80	7	6		0	0			18.8	SW	13	12	11	7	4.4	85
NEVADA																																
ELKO	1539	843.2	1011.8	25.8	4.4	15.1	-0.2	33.9	29+	-5.0	14	4	4	-2.8	33	16	-9	9	3	1	0	0	1.6	24	10.3	32	13+	14	9	7	4.2	
ELY	1906	808.0	1010.0	25.4	3.5	14.5	0.2	33.3	29+	-7.8	14	3	5	-3.3	31	9	-15	5	3	2	0	0	2.9	21	18.8	S	30	15	11	4	3.9	81
LAS VEGAS	659	933.3	1007.6	35.8	19.2	27.5	-0.4	42.8	29+	12.8	11	25	0	-6.1	12	0	-2	0	0	0	0	0	3.1	23	14.8	SW	21	24	6	0	1.7	97
RENO	1342	864.9	1012.3	26.8	5.4	16.2	-0.2	35.0	28+	-0.6	4	4	2	-1.1	33	T	-10	T	0	0	0	0	1.7	28	14.3	SW	29	15	8	7	4.0	95
WINNEMUCCA	1311	867.3	1011.7	28.5	7.8	18.2	1.7	37.8	28	3.3	14+	6	0	-1.7	30	29	3	25	3	1	0	0	1.8	31	14.8	NW	21	17	4	9	4.2	82
NEW HAMPSHIRE																																
CONCORD	104	1003.7	1016.1	27.9	13.1	20.5	2.3	33.9	16	1.7	13	7	0	15.0	73	70	-15	39	10	4	0	0	1.3	21	9.8	NW	12	5	13	12	6.2	64
MT WASHINGTON OBS	1909			12.3	5.8	9.1	2.0	18.3	16	-5.0	12	0	5			230	65	70	19	7	5	0			36.2Y	W	11	2	4	24	8.3	32
NEW JERSEY																																
ATLANTIC CITY	20	1015.6	1017.9	26.8	14.9	20.9	-0.4	32.8	27	4.4	5	2	0	14.4	71	25	-61	15	5	4	0	0	2.1	20	9.8	18	30+	5	10	15	6.8	60
ATLANTIC CITY U	3			23.9	17.3	20.6	0.1	31.1	27	11.1	4	0	0			40	-31	20	5						11.6	SSW	16					
NEWARK	2	1015.9	1017.0	27.9	18.2	23.1	1.2	33.9	28+	11.1	3	7	0	14.4	63	39	-37	13	8	6	0	0	1.7	21	13.4	32	28	4	10	16	7.1	
TRENTON U	17			28.2	17.9	23.1	1.3	33.9	28	9.4	3	5	0			66	-16	28	10		0	0			15.6	S	30	7	9	14	6.6	52
NEW MEXICO																																
ALBUQUERQUE	1619	837.8	1009.6	31.8	14.2	23.0	-0.7	36.1	20	7.8	15+	15	0	0.0	25	15	3	14	2	5	0	0	1.2	21	19.2	E	19	20	9	1	2.2	85
CLAYTON	1515			28.8	12.7	20.7	0.1	36.1	21	8.3	15	8	0			17	-27	9	9		0	0										
ROSWELL	1112	888.6	1009.3	34.1	18.4	26.3	1.3	40.0	21	13.3	1	23	0	9.4	39	39	8	19	5	6	0	0	2.1	15	16.5	SW	3	18	9	3	3.5	90
NEW YORK																																
ALBANY	84	1006.1	1016.6	27.2	14.4	20.8	1.1	32.8	10	5.0	3	1	0	15.6	74	136	60	62	16	9	0	0	1.4	20	13.9	W	11	7	10	13	6.3	61
BINGHAMTON	485	959.7	1017.6	24.7	14.2	19.4	1.2	28.9	15	7.2	3+	0	0	13.9	71	112	21	34	16	11	0	0	1.6	23	11.6	NW	26	7	11	12	6.0	64
BUFFALO	215	990.5	1016.0	25.3	15.1	20.2	1.5	31.7	14+	5.6	2	0	0	13.3	69	85	29	22	14	8	0	0	2.2	21	14.8	NW	26	8	7	15	6.2	61
NEW YORK U	40	1014.2	1017.7	27.7	18.0	22.9	0.9	33.3	28	10.0	3	6	0	15.6	68	71	-5	24	11	4	0	0	0.8	19	8.9	NW	1					58
NEW YORK KENNEDY	4	1016.6	1017.5	25.4	17.0	21.2	0.4	32.8	27	9.4	4+	2	0	15.6	75	101	25	70	7	4	0	0	2.8	20	13.0	27	29	7	9	14	6.2	
NEW YORK LA GUARDIA	3	1016.3	1017.3	27.8	18.9	23.4	1.4	32.8	28+	11.1	2	5	0	15.6	65	70	-4	21	9	5	0	0	2.1	21	15.2	NW	28	7	9	14	6.4	
ROCHESTER	167	996.3	1016.3	27.0	15.0	21.0	1.6	32.8	15	4.4	2	2	0	15.6	74	86	21	28	13	9	0	0	1.5	24	17.9	SW	30	10	6	14	5.8	58
SYRACUSE	125	1001.0	1015.9	25.9	13.9	19.9	0.6	31.1	15+	5.0	2	0	0	15.0	76	188	110	53	19	10	0	0	1.0	21	15.6	N	26	11	6	13	6.0	58
NORTH CAROLINA																																
ASHEVILLE	652	942.8	1018.2	25.7	14.4	20.1	-1.4	30.0	12	3.9	6	[illegible]	0	15.6	82	140	39	47	12	10	0	0	[illegible]	16	11.2	33	30	3	11	16	7.2	55

CLIMATOLOGICAL DATA

METRIC UNITS

JUNE 1976

State and Station	Elevation (ground)	Pressure		Temperature										Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
											No. of days						No. of days		Snow, ice pellets				Fastest mile (1.6 kilometers)								
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Resultant speed	Resultant direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy 8-10		
NORTH CAROLINA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
CAPE HATTERAS R	2	1018.3	1018.6	25.8	20.4	23.1	-0.4	29.4	26+	13.9	7	0	0	20.6	85	120	-3	41	16	7	0	0	1.4	20	11.2	4	5+	2	5	23	8.4	37
CHARLOTTE	224	990.5	1017.7	27.6	17.3	22.4	-1.9	32.2	12	8.9	6	1	0	17.2	76	98	4	29	16	5	0	0	0.7	15	12.5	S	1	6	8	16	7.0	55
GREENSBORO	273	986.8	1018.0	26.8	16.7	21.8	-1.8	31.7	12	8.9	6+	0	0	17.8	82	99	0	28	14	7	0	0	0.8	17	11.2	SW	19	7	6	17	7.0	55
RALEIGH	132	1002.0	1017.8	29.7	17.7	23.7	0.2	36.1	12	8.3	6	10	0	18.9	79	65	-28	24	12	10	0	0	1.1	16	8.9	6	5	5	9	16	7.0	51
WILMINGTON	9	1016.9	1018.2	28.9	19.9	24.4	-0.8	34.4	12	12.2	6	5	0	20.6	83	324	182	121	11	9	0	0	1.0	15	10.7	NE	27	1	9	20	8.2	43
NORTH DAKOTA																																
BISMARCK	502	951.9	1010.4	27.3	11.7	19.5	1.8	35.6	10+	4.4	18	7	0	11.1	63	68	-23	24	9	8	0	0	0.2	21	17.9	SW	12	9	10	11	5.7	73
FARGO	273	978.7	1010.8	27.0	13.5	20.3	2.1	35.0	9	5.0	16	4	0	11.7	61	59	-22	14	10	7	0	0	1.7	17	26.4	W	28	6	9	15	6.6	72
WILLISTON	579	943.1	1010.3	25.0	11.7	18.3	1.3	32.8	2	3.3	18	1	0	10.6	63	62	-20	28	12	12	0	0	0.9	31	17.0	NW	12	6	14	10	6.0	57
OHIO																																
AKRON	368	972.6	1016.6	26.1	14.6	20.3	0.2	31.1	14	9.4	2	0	0	13.3	66	100	11	39	8	4	0	0	1.2	22	9.4	23	30+	8	9	13	6.0	
CINCINNATI ABBE OB	232			27.6	16.2	21.9	-0.9	33.3	12+	11.7	6	3	0			161	61	54	13						8.0	SW	24					32
CLEVELAND	237	987.5	1016.3	26.6	15.1	20.8	0.9	32.2	14	9.4	6	1	0	15.0	72	92	9	20	10	6	0	0	1.1	24	11.6	S	15+	8	8	14	6.2	68
COLUMBUS	247	986.8	1016.5	27.2	15.6	21.4	0.1	32.8	13	10.6	7	5	0	14.4	68	115	10	32	12	7	0	0	1.1	19	14.3	W	29	8	7	15	6.5	43
DAYTON	303	980.4	1016.0	27.6	15.2	21.4	-0.4	32.8	13	11.7	7+	2	0	15.0	71	135	37	31	12	6	0	0	1.1	22	17.9	W	29	9	7	14	6.3	01
MANSFIELD	395			25.5	14.1	19.8	-1.2	31.1	14	8.3	3	0	0			110	22	37	7	6	0	0	1.7	22	10.3	24	30+	10	7	13	5.9	
TOLEDO	204	990.9	1015.6	27.6	13.8	20.7	0.2	33.9	14	7.2	6	6	0	13.9	67	94	8	28	11	8	0	0	0.8	24	15.6	W	29	8	11	11	5.6	71
YOUNGSTOWN	359	974.6	1016.6	26.3	14.7	20.5	1.1	31.1	15+	8.9	2	0	0	13.9	68	103	12	28	6	4	0	0	1.1	22	12.1	27	30	8	8	14	6.1	
OKLAHOMA																																
OKLAHOMA CITY	392	968.5	1013.9	30.2	17.3	23.8	-1.1	37.8	29	10.6	20	7	0	16.1	65	22	-85	13	4	4	0	0	2.7	15	15.2	SW	23	13	10	7	4.6	
TULSA	198	990.2	1014.2	30.1	17.6	23.9	-1.3	35.6	28	11.1	4	9	0	17.2	67	47	-72	25	7	7	0	0	2.4	16	15.2	S	13	15	9	6	4.5	73
OREGON																																
ASTORIA	2	1019.0	1019.7	17.3	9.2	13.3	-0.3	26.1	18	3.3	3	0	0	8.9	78	32	-30	19	12	0	0	0	2.4	27	11.2	18	11	5	7	18	7.3	
BURNS J	1265			21.9	5.3	13.7	-1.3	33.3	28	-1.7	26	1	2			17	-8	9	7		0	0			21.0Y	SW	9	12	9	9	4.9	
EUGENE	109	1004.7	1018.5	22.8	6.2	14.5	-1.8	33.3	18	0.0	13	2	1	7.8	67	5	-27	3	5	0	0	0	1.1	33	8.9	26	1	6	9	15	6.6	
MEDFORD	396	969.2	1016.5	25.7	7.3	16.5	-1.4	35.0	18	0.6	4	4	0	5.0	53	1	-22	1	3	0	0	0	1.8	32	9.4	32	23	14	6	10	4.4	
PENDLETON	452	962.1	1015.1	25.1	10.2	17.6	-1.1	35.0	28	3.9	26	2	0	5.6	48	8	-17	6	5	0	0	0	2.6	28	12.5	33	24	11	10	9	5.1	
PORTLAND	6	1016.9	1018.3	21.6	9.9	15.8	-0.9	31.7	18	5.6	13+	0	0	7.8	63	20	-21	9	7	0	0	0	1.8	32	10.3	SW	30	4	8	18	7.0	62
SALEM	60	1010.8	1018.2	21.3	6.3	13.8	-2.4	31.7	18	0.0	3	0	1	8.3	71	26	-9	16	6	0	0	0	0.8	27	8.9	27	12	4	12	14	6.5	
SEXTON SUMMIT R	1169	884.9	1016.4	17.8	5.6	11.7	-1.3	27.3	28+	-0.6	2	0	3			9	-23	7	3		0	0			13.4	36	2					
PACIFIC AREA																																
GUAM TAGUAC R	110			29.9	22.8	26.4	-0.2	31.1	4+	21.1	14+	0	0			163	31	35	22		0	0			14.3	E	24+	0	7	23	8.6	59
JOHNSTON	2	1012.9	1013.5	28.2	24.1	26.1	-0.7	29.4	6	21.1	30	0	0	21.1	76	24	-2	18	7	0	0	0	6.5	9	14.8	E	18	6	14	10	6.2	66
KOROR R	29	1005.4		31.0	24.5	27.8	0.2	35.0	3	22.8	24+	10	0			150	-199	37	19	3	0	0	0.7	23	7.6	W	22+	0	7	23	8.7	42
KWAJALEIN	2	1009.1		29.7	24.9	27.3	-0.4	30.6	29+	21.7	18	0	0			285	33	46	26	3	0	0	3.9	8	12.5	7	16	0	3	27	9.1	
MAJURO	3	1009.5		29.4	23.9	26.7	-0.6	30.6	9+	22.2	17	0	0			240	-70	46	27		0	0	3.4	8	11.2	E	28+	0	5	25	9.2	49
PAGO PAGO	4	1011.9	1012.0	29.1	22.8	26.0	-0.2	30.6	23	20.6	24	0	0	22.8	83	181	-58	81	21	1	0	0	3.1	9	13.4	NE	13	2	15	13	7.1	36
PONAPE R	37			31.1	22.7	26.9	-0.1	32.8	8	21.1	4	5	0			533	135	103	29	1	0	0			6.7	NE	5	0	7	23	8.8	57
TRUK MOEN ISLAND	2	1009.1		30.2	24.1	27.2	-0.2	32.2	19	22.8	17	1	0			311	-8	57	20	1	0	0	1.7	8	12.1	SE	15	0	4	26	9.3	36
WAKE	3	1013.2	1013.5	31.2	24.7	27.9	0.4	33.3	29	22.8	9	4	0	22.8	77	46	-14	30	16	0	0	0	4.7	10	14.8	E	17	12	11	7	4.7	67
YAP R	13	1007.1		30.3	23.0	26.7	-0.9	31.7	4+	21.1	22+	0	0			338	61	74	20	0	0	0	1.2	11	8.5	SW	26	0	8	22	8.7	57
PENNSYLVANIA																																
ALLENTOWN	118	1003.7	1017.3	28.0	17.1	22.6	1.7	33.3	10+	7.8	3	5	0	15.6	68	91	3	38	13	9	0	0	1.7	22	14.3	29	28	6	12	12	6.5	
ERIE	223	990.2	1016.5	24.1	14.1	19.1	1.0	30.6	15+	5.6	2	0	0	14.4	76	101	12	35	7	4	0	0	1.7	21	14.3	27	28	6	12	12	6.0	
HARRISBURG	103	1005.4	1017.9	28.1	17.9	23.0	0.8	34.4	28+	8.9	3	3	0	17.8	74	61	-18	28	11	9	0	0	1.1	22	14.3	NW	1	6	7	15	6.3	50
PHILADELPHIA	2	1016.6	1017.5	29.5	18.5	24.0	1.6	33.9	10	10.6	3	12	0	16.7	66	87	-7	49	8	5	0	0	1.9	20	15.2	SW	23	9	4	17	6.4	54
PITTSBURGH	347	973.6	1017.1	25.7	14.7	20.2	-0.1	29.4	27+	9.4	5	0	0			86	-3	30	11	6	0	0	1.1	24	11.2	26	30	10	5	14	6.1	48
SCRANTON	283	983.4	1017.0	26.2	16.4	21.3	1.4	30.6	10	7.8	3	0	0	15.0	70	138	52	30	16	7	0	0	1.4	21	12.5	NW	28	7	10	14	6.4	57
WILLIAMSPORT	160	998.0	1016.8	27.7	16.3	22.0	1.6	32.8	27	9.4	5+	2	0	16.1	73	135	52	45	15	8	0	0	0.6	21	12.5	30	30	8	10	12	6.3	
RHODE ISLAND																																
BLOCK ISLAND	34			24.7	16.8	20.8	3.5	31.1	27+	8.9	4	0	0			20	-36	12	9		0	0										
PROVIDENCE	16	1014.9	1017.2	26.8	15.4	21.1	2.0	33.9	24+	7.2	13+	3	0	14.4	70	41	-27	24	12	3	0	0	2.3	22	9.8	26	7	3	14	13	6.7	57
SOUTH CAROLINA																																
CHARLESTON	12	1016.3	1018.1	29.3	19.3	24.3	-1.2	33.9	12	12.8	8	4	0	18.9	78	142	-18	53	11	10	0	0	0.8	16	10.3	29	30	2	8	20	8.0	63

CLIMATOLOGICAL DATA

METRIC UNITS

JUNE 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
SOUTH CAROLINA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							
CHARLESTON J	3			28.2	21.4	24.8	-1.4	33.3	12	15.6	6+	1	0			94	-45	27	15		0	0											
COLUMBIA	65	1009.8	1017.7	29.6	17.7	23.7	-2.3	33.3	12	9.4	6	7	0	16.7	72	296	199	103	20	15	0	0	0.6	14	10.3	5	7	3	11	16	7.5	35
GRNVLLE-SPRTNBRG	292	983.1	1017.2	27.6	16.2	21.9	-2.5	32.2	12	8.9	7+	1	0	17.2	79	71	-31	23	11	9	0	0	0.4	16	8.5	SW	19+	7	9	14	6.4	50
SOUTH DAKOTA																																
ABERDEEN	395	964.4	1010.5	29.1	13.1	21.1	2.5	36.1	11	3.9	19	8	0	10.6	55	36	-56	25	8	6	0	0	1.6	16	14.3	14	10	11	7	12	5.5	
HURON	390	964.8	1010.4	29.6	11.7	20.7	1.2	37.8	10	2.8	18	8	0	9.4	52	50	-45	47	3	1	0	0	2.3	17	15.2	NW	26	14	8	8	4.8	78
RAPID CITY	964	902.5	1011.3	25.6	10.3	17.9	0.1	33.9	10	3.9	18	2	0	9.4	61	122	29	92	12	10	0	0	0.7	31	21.9	NW	14	14	9	7	4.5	69
SIOUX FALLS	432	961.7	1012.2	30.4	13.4	21.9	2.2	37.2	11	3.3	19	13	0	10.6	50	26	-84	23	3	4	0	0	2.6	19	13.4	19	14	14	10	6	4.4	
TENNESSEE																																
BRISTOL	459	964.1	1017.5	27.6	15.4	21.5	-0.9	31.1	13	7.8	6	0	0	16.7	79	143	53	57	12	9	0	0	0.3	8	7.6	36	26+	8	9	13	6.1	
CHATTANOOGA	203	992.2	1016.5	28.0	17.3	22.7	-1.8	32.2	13	9.4	6	1	0	18.3	80	172	78	71	15	12	0	0	0.8	21	10.7	22	18	7	8	15	6.4	50
KNOXVILLE	299	982.1	1016.6	29.0	17.5	23.3	-0.9	32.2	28+	10.0	6	2	0	18.3	77	88	-4	53	11	5	0	0	0.5	28	8.9	26	1	7	9	14	6.0	55
MEMPHIS	79	1005.8	1015.9	29.3	20.0	24.7	-1.2	33.9	13	15.6	7	9	0	17.2	65	103	15	30	10	8	0	0	0.7	17	10.7	35	29	10	9	11	5.5	75
NASHVILLE	180	994.6	1016.1	28.4	17.4	22.9	-1.8	32.8	29	12.2	7	6	0	18.3	79	120	34	56	14	9	0	0	0.9	22	11.2	31	29	9	9	12	5.8	64
OAK RIDGE R	276			27.8	15.4	21.6	-1.8	31.7	13	6.7	6	0	0			122	22	38	10		0	0			20.6Y		29	6	12	12	6.1	
TEXAS																																
ABILENE	544	950.9	1012.0	32.9	19.2	26.1	-0.8	36.7	14	12.2	20+	19	0	14.4	53	17	-54	8	5	7	0	0	3.7	16	16.5	S	17	12	10	8	5.0	70
AMARILLO	1098	890.6	1011.3	30.2	14.4	22.3	-1.3	37.8	22	8.9	1	13	0	10.6	52	75	-13	38	6	9	0	0	4.0	19	16.5	17	22	17	9	4	3.6	82
AUSTIN	182	991.9	1013.6	31.8	21.2	26.6	-1.0	34.4	24	15.6	21	15	0	19.4	70	81	2	46	6	3	0	0	2.1	16	11.2	S	23	8	21	1	4.5	69
BROWNSVILLE	6	1012.2	1012.9	32.3	22.8	27.6	-0.7	33.9	27+	18.9	6	20	0	21.7	74	20	-51	7	7	1	0	0	3.4	13	12.5	SE	30	7	21	2	4.6	83
CORPUS CHRISTI	12	1011.5	1013.3	32.4	22.7	27.6	-0.4	34.4	15	19.4	4	18	0	22.2	76	19	-49	7	6	0	0	0	3.6	12	13.9	NE	1	8	21	1	4.6	72
DALLAS - FORT WORTH	168	992.9	1013.6	32.3	19.7	26.0	-1.0	36.7	29	14.4	21+	17	0	17.8	65	36	-42	28	5	7	0	0	1.9	17	11.2	21	23	11	12	7	4.7	
DEL RIO	313	976.0	1011.3	34.2	21.9	28.1	-1.0	37.2	15	18.3	6	28	0	18.3	60	12	-40	11	2	7	0	0	4.3	12	11.2	11	26	8	17	5	5.3	
EL PASO	1194	880.1	1008.4	35.3	17.3	26.3	-0.5	40.6	22	10.6	1	29	0	5.6	31	13	-3	5	5	6	0	0	1.3	19	17.9	22	22	20	8	2	2.7	95
GALVESTON	2			28.8	24.4	26.7	-0.7	30.6	28+	18.3	1	0	0			109	6	50	6		0	0			10.7	NE	1					77
HOUSTON INTERCON	29	1010.8	1014.6	31.8	19.7	25.8	-1.5	35.0	27	15.0	21+	14	0	19.4	72	67	-48	102	6	6	0	0	1.6	13	10.3	20	29	14	9	7	4.5	70
LUBBOCK	992	902.8	1011.2	32.2	17.8	25.1	0.0	37.8	22+	12.8	16+	18	0	11.1	49	62	-8	59	3	13	0	0	3.0	16	14.3	17	13	15	9	6	4.1	78
MIDLAND	869	914.7	1010.6	32.7	18.4	25.6	-1.0	37.8	21	11.7	16	20	0	12.8	49	54	17	20	6	8	0	0	3.3	15	17.9	10	5+	8	17	5	4.9	
PORT ARTHUR	5	1014.2		31.2	20.7	25.9	-1.2	33.9	28+	15.0	2	10	0	21.7	82	156	34	123	5	6	0	0	1.4	15	12.5	N	19+	10	14	6	4.9	72
SAN ANGELO	580	946.5	1011.6	32.6	20.4	26.5	-1.1	36.1	23+	15.6	16	18	0	16.1	56	10	-37	8	4	5	0	0	3.0	14	10.7	18	22	9	12	9	5.3	
SAN ANTONIO	240	986.1	1013.4	31.7	21.4	26.6	-1.3	33.9	22	15.6	21	17	0	19.4	69	41	-30	25	5	4	0	0	2.7	14	9.8	S	22	7	18	5	5.5	67
VICTORIA	32	1009.8	1014.0	32.5	21.6	27.1	-0.7	34.4	25+	18.3	21+	20	0	20.6	74	34	-51	13	5	5	0	0	2.5	13	17.4Y	SE	1	8	16	6	5.3	
WACO	153	995.9	1013.7	32.7	21.0	26.9	-0.8	35.6	24	13.9	21	21	0	20.0	70	82	13	73	7	7	0	0	2.8	14	12.1	16	23	8	17	5	5.3	
WICHITA FALLS	303	977.0	1012.7	32.4	18.7	25.6	-1.8	37.8	29	11.1	16	16	0	17.2	63	55	-31	42	4	5	0	0	3.3	14	17.4	26	17	13	11	6	4.6	
UTAH																																
MILFORD	1533	844.9	1010.8	28.6	6.3	17.5	-0.9	36.7	29+	-4.4	14	8	2			2	-12	1	2		0	0			25.5	SW	10	18	7	5	3.1	84
SALT LAKE CITY	1286	869.6	1010.6	27.9	11.6	19.8	0.8	37.2	29	4.4	14	7	0	3.3	38	31	-2	18	4	4	T	0	1.3	16	15.6	W	10	15	10	5	4.1	83
WENDOVER	1291	868.3	1010.6	27.7	14.8	21.2	0.6	36.7	30	6.7	14	5	0			1	-17	1	1		0	0										
VERMONT																																
BURLINGTON	101	1003.7	1015.9	26.8	14.5	20.7	2.2	32.8	28	4.4	2	1	0	15.0	72	103	15	37	17	8	0	0	1.4	19	12.5	S	16+	5	10	15	6.5	62
VIRGINIA																																
LYNCHBURG	279	984.8		27.1	15.5	21.3	-1.2	32.2	12	6.7	6	1	0			186	99	68	13		0	0			13.0	NW	30	9	7	14	6.2	58
NORFOLK	7	1017.3	1018.2	29.2	19.5	24.4	0.8	33.9	30+	12.8	7	10	0	17.8	70	40	-52	19	9	7	0	0	1.4	18	12.5	4	5	4	6	20	7.1	52
RICHMOND	50	1011.2	1017.7	29.8	17.5	23.7	0.2	35.6	12	7.2	6	12	0	18.3	75	72	-17	44	11	8	0	0	1.2	18	10.7	NW	30	4	11	15	6.7	53
ROANOKE	350	976.3	1017.9	27.4	14.8	21.1	-0.9	32.8	12	5.0	5	3	0	16.1	76	132	43	43	9	4	0	0	0.4	16	8.0	8	4	7	5	18	7.0	
WALLOPS ISLAND	3			25.3	17.7	21.5	-0.4	32.2	25+	12.2	7	2	0			61	-27	24	8		0	0			25.9Y	WNW	1					
WASHINGTON																																
OLYMPIA	59	1010.5	1017.9	19.9	5.5	12.7	-2.2	28.9	18	-1.1	3	0	3	7.8	74	27	-13	10	6	0	T	0	1.6	22	8.9	23	24	3	13	14	7.1	
QUILLAYUTE	55	1011.5	1018.9	16.5	6.7	11.6	-1.3	23.3	18	0.6	2+	0	0	7.8	81	70	-19	39	13	0	0	0	1.4	26	8.0	S	11	1	8	21	8.1	33
SEATTLE U	6			19.7	10.4	15.1	-1.2	26.7	18	5.6	1	0	0			27	-13	11	7		0	0			13.4Y	WSW	30					
SEATTLE-TACOMA	122	1002.0	1018.4	20.8	10.3	15.6	0.1	30.0	18	5.6	1	0	0	8.3	67	16	-23	10	4	0	0	0	0.9	24	10.7	SW	12	4	9	17	6.9	67
SPOKANE	718	930.6	1013.8	21.7	7.7	14.7	-1.7	33.9	29	1.7	5	2	0	4.4	55	20	-15	8	8	3	0	0	2.1	21	16.5	W	24	4	10	16	6.5	65
STAMPEDE PASS R	1206	880.1		11.7	3.4	7.6	-2.0	25.0	28	-1.7	12+	0	8			88	-13	30	15		163	102						3	9	18	7.5	
WALLA WALLA U	289			24.6	10.7	17.7	-1.9	37.2	28	5.6	1	1	0			15	-14	5	6		0	0			9.8	SW	30+	11	7	12	5.4	65
YAKIMA	321	977.0		23.9	7.1	15.5	-2.6	33.9	28	-1.1	2+	1	3			18	-1	13	4	1	0	0						12	8	10	5.1	

CLIMATOLOGICAL DATA

METRIC UNITS

JUNE 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
WEST INDIES																																
SAN JUAN P.R.	4	1014.9	1017.4	30.7	24.4	27.6	0.7	32.2	16	23.3	21+	1	0	20.0	65	75	-68	20	18	3	0	0	4.3	9	12.1	E	17	1	18	11	6.9	80
WEST VIRGINIA																																
BECKLEY	763	931.3	1017.7	24.4	14.0	19.2	-0.4	28.9	12	6.7	6	0	0	13.9	74	76	+31	25	11	6	0	0	1.4	16	11.2	14	3	4	11	15	7.1	
CHARLESTON	286	983.7	1017.3	28.6	15.7	22.2	-0.1	34.4	18	8.3	6	7	0	15.0	67	108	24	45	13	9	0	0	0.7	21	10.7	29	16	6	11	13	6.5	
ELKINS	594	948.2		26.6	12.0	19.3	0.6	31.7	12	1.7	5	0	0			82	-39	30	12		0	0						4	10	16	7.1	
HUNTINGTON	252	987.1	1016.7	27.9	16.7	22.3	-0.1	32.8	13+	10.0	6	4	0	16.1	71	108	22	30	13	5	0	0	0.5	19	12.5	29	16	6	11	13	6.8	
PARKERSBURG	187			27.2	15.7	21.4	-0.8	32.8	12	10.6	7	1	0			115	13	35	9		0	0			7.6	SW	1					55
WISCONSIN																																
GREEN BAY	208	989.2	1014.3	27.2	12.9	20.1	2.0	33.3	9	6.1	2	3	0	13.3	66	8	-79	4	6	4	0	0	1.5	22	18.8	SW	15	12	11	7	4.6	68
LA CROSSE	198	990.9	1015.6	27.9	14.2	21.1	0.8	33.9	13+	8.3	19+	5	0	13.3	65	46	-67		8	8	0		1.1	18								
MADISON	262	983.7	1014.7	28.1	12.2	20.2	1.4	35.0	13+	3.9	3	5	0	11.7	60	35	-75	13	8	5	0	0	1.3	22	13.4	SW	15+	12	7	11	5.2	69
MILWAUKEE	205	990.2	1015.0	25.7	14.5	20.1	2.1	33.3	13	7.2	2	1	0	13.9	69	58	-33	36	9	4	0	0	1.3	23	20.1	W	12	11	10	9	5.2	71
WYOMING																																
CASPER	1627	836.4	1011.0	24.8	7.1	15.9	-0.7	31.1	10	0.6	14	0	0	4.4	53	42	-6	26	5	9	T	T	1.7	23	14.3	26	13	9	11	10	5.4	
CHEYENNE	1867	811.7	1011.3	23.0	7.8	15.4	-0.9	30.0	27	3.3	19+	0	0	1.1	44	17	-44	10	6	8	T	0	1.9	26	31.3	NW	14	8	10	12	5.7	55
LANDER	1696	828.3	1011.2	24.1	7.4	15.8	-0.4	32.2	30	0.0	14	1	1	1.7	43	50	1	23	7	5	74	T	1.8	23	15.2	S	10	9	14	7	5.0	71
SHERIDAN	1208	876.7	1011.9	24.2	7.3	15.7	-0.4	32.8	30	1.7	27	1	0	7.8	63	59	-17	31	10	9	0	0	1.3	30	18.3	NW	14	8	11	11	5.9	63

MONTHLY AND SEASONAL HEATING DEGREE DAYS

(Base 65°F) 1975-1976

State and Station	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total for Season	Normals July-June
ALABAMA														
BIRMINGHAM	0	0	49	105	349	626	795	814	713	129	65	0	2645	2844
HUNTSVILLE	0	0	65	126	376	699	883	415	303	181	93	0	3141	3302
MOBILE	0	0	9	11	211	402	475	174	100	8	0	0	1390	1684
MONTGOMERY	0	0	19	31	312	561	660	291	197	67	33	0	2171	2269
ALASKA														
ANCHORAGE	192	252	463	937	1517	1654	1485	1511	1260	897	615	332	11115	10911
ANNETTE	271	276	328	584	825	852	827	888	867	610	509	315	7152	7053
BARROW	850	931	1226	1852	2293	2699	2609	2554	2501	2014	1476	943	21948	20265
BARTER ISLAND	803	877	1157	1711	2301	2672	2656	2564	2588	1867	1391	922	21509	19994
BETHEL	255	324	658	1078	1741	1917	1996	2102	1921	1427	843	459	14621	13203
BETTLES	134	337	790	1454	2260	2595	2450	2474	1877	1156	651	240	16418	15925
BIG DELTA	148	346	577	1334	2184	2383	2105	2161	1566	877	581	204	14466	13698
COLD BAY	443	380	553	790	1038	1145	1217	1184	1324	1125	877	603	10679	9865
FAIRBANKS	33	270	570	1270	2195	2513	2372	2285	1631	861	527	156	14683	14345
GULKANA	230	378	555	1117	1945	2233	2074	2034	1544	960	697	294	14061	13938
HOMER	367	387	504	863	1274	1413	1321	1271	1184	892	716	502	10694	10364
JUNEAU	281	337	402	712	1088	1244	1132	1131	1006	706	597	384	9020	9007
KING SALMON	311	347	526	1004	1568	1699	1629	1673	1533	1059	784	536	12669	11582
KODIAK	424	396	507	782	1138	1215	1074	1087	1128	856	646	415	9668	8860
KOTZEBUE	451	415	834	1382	2006	2222	2176	2403	1993	1771	1078	762	17493	16039
MC GRATH	173	334	668	1280	2203	2538	2458	2377	1758	1102	660	280	15831	14487
NOME	414	476	818	1222	1724	1956	2015	2297	1922	1656	983	674	16157	14325
ST. PAUL ISLAND	653	539	670	886	1064	1102	1327	1622	1612	1422	1055	745	12697	11119
SUMMIT	383	501	745	1299	1897	2021	1931	1975	1696	1180	878	420	14926	14368
TALKEETNA	222	296	535	1044	1690	1862	1749	1679	1426	931	640	266	12340	11708
UNALAKLEET	247	311	680	1176	1881					1390	874			
VALDEZ	292	317	548	854	1241	1401	1319	1315	1107	848	655	358	10255	10545
YAKUTAT	352	402	455	778	1120	1256	1170	1193	1057	858	733	469	9843	9533
ARIZONA														
FLAGSTAFF	23	66	207	566	821	1101	1059	862	912	702	370	190	6879	7322
PHOENIX	0	0	0	15	159	310	296	123	134	52	0	0	1089	1552
TUCSON	0	0	0	38	191	365	379	180	221	88	5	0	1466	1752
WINSLOW	0	0	28	310	734	995	988	648	687	366	93	8	4857	4733
YUMA	0	0	0	7	112	270	257	116	100	48	0	0	910	1005
ARKANSAS														
FORT SMITH	0	0	62	141	430	741	863	413	353	123	80	0	3206	3336
LITTLE ROCK	0	0	48	130	414	681	777	359	284	146	70	0	2909	3354
CALIFORNIA														
BAKERSFIELD	0	0	0	73	304	521	463	272	243	140	M	0	2016	2185
BISHOP	0	1	0	330	640	702	767	711	573	423	56	21	4224	4313
BLUE CANYON	65	105	16	521	714	648	656	811	816	718	269	227	5566	5704
EUREKA U	244	290	286	328	486	542	569	516	590	490	424	360	5125	4679
FRESNO	0	0	0	154	455	648	636	440	385	242	10	9	2979	2650
LONG BEACH	0	0	0	28	145	239	177	161	165	165	8	1	1089	1606
LOS ANGELES	0	0	0	31	145	226	176	202	206	205	49	15	1255	1819
LOS ANGELES U	0	0	0	31	132	247	190	246	215	215	50	12	1338	1245
MT SHASTA R	53	86	35	520	813	867	902	813	781	637	272	202	5981	5890
OAKLAND	97	60	97	176	371	481	529	404	397	299	185	118	3214	2929
RED BLUFF	0	M	0	168	424	537	547	452	406	269	0	3	2806	2688
SACRAMENTO	0	0	0	72	306	539	547	374	315	211	1	3	2368	2843
SANDBERG R	7	18	0	333	557	615				604	187	125		4427
SAN DIEGO	0	0	0	19	141	246	196	150	148	115	16	0	1031	1507
SAN FRANCISCO	109	75	120	188	377	480	504	415	427	344	222	136	3397	3042
SAN FRANCISCO U	185	170	177	164	276	352	353	344	378	321	262	179	3161	3080
SANTA MARIA	103	63	96	215	334	432	381	354	385	394	242	132	3131	3053
STOCKTON	0	1	0	140	420	622	613	408	412	339	42	7	3004	2806
COLORADO														
ALAMOSA	26	102	319	695	1157	1488	1579	1014	1010	672	432	208	8699	8609
COLORADO SPRINGS	0	10	200	391	852	916	1075	782	891	512	314	80	6023	6473
DENVER	0	4	195	363	840	843	1006	740	859	469	254	64	5637	6016
GRAND JUNCTION	0	0	35	358	858	1161	1335	775	807	386	122	25	5862	5605
PUEBLO	0	0	119	320	795	874	1049	714	814	401	175	25	5286	5394
CONNECTICUT														
BRIDGEPORT	0	0	59	190	432	908	1174	826	762	420	251	37	5059	5481
HARTFORD	0	11	121	292	503	1125	1403	869	759	391	213	20	5707	6350
DELAWARE														
WILMINGTON	0	0	56	177	418	888	1149	681	567	341	178	31	4486	4940
DIST.OF COLUMBIA														
WASHINGTON DULLES	0	0	83	247	526	977	1158	688	625	382	232	35	4953	5010
WASHINGTON NATIONAL	0	0	20	102	328	752	956	524	415	236	80	0	3413	4211
FLORIDA														
APPALACHICOLA U	0	0	3	7	179	350	476	233	85	20	0	0	1353	1301
DAYTONA BEACH	0	0	0	0	102	222	334	143	34	16	0	0	851	897
FORT MYERS	0	0	0	0	48	102	164	78	5	0	0	0	397	427
JACKSONVILLE	0	0	0	11	176	373	498	210	79	43	9	0	1399	1327
KEY WEST	0	0	0	0	2	13	38	4	0	0	0	0	57	84
LAKELAND U	0	0	0	0	85	179	252	92	17	0	0	0	625	678
MIAMI	0	0	0	0	33	49	93	27	0	0	0	0	202	206
ORLANDO	0	M	0	0	85	174	278	104	18	1	0	0	660	743
PENSACOLA	0	0	12	9	199	387	404	179	103	12	1	0	1306	1578
TALLAHASSEE	0	0	5	22	237	417	537	234	110	32	4	0	1598	1563
TAMPA	0	0	0	0	88	183	268	109	18	M	0	0	668	718
WEST PALM BEACH	0	M	0	0	40	74	132	56	4	0	M	0	306	299
GEORGIA														
ATHENS	0	0	14	85	323	635	778	360	245	116	44	5	2605	2975
ATLANTA	0	0	28	113	342	665	814	384	265	124	48	4	2787	3095
AUGUSTA	0	0	2	62	285	540	687	320	167	97	29	2	2191	2547
COLUMBUS	0	M	20	61	286	532	672	301	179	55	13	0	2119	2378
MACON	0	0	10	57	280	537	658	290	168	62	17	0	2079	2240
ROME	0	0	32	117	378	680	876	445	308	148	59	M	3045	3342
SAVANNAH	0	M	0	25	228	446	586	256	134	69	11	0	1755	1952
HAWAII														
HILO	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HONOLULU	0	M	0	0	0	0	0	0	0	0	0	0	0	0
KAHULUI	M	M	0	0	0	0	M	0	M	0	0	0	0	0
LIHUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MONTHLY AND SEASONAL HEATING DEGREE DAYS

(Base 65°F)

State and Station	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total for Season	Normals July-June
IDAHO														
BOISE	6	21	74	399	756	1035	1013	880	858	524	189	132	5896	5833
LEWISTON	1	17	48	417	736	863	862	774	738	437	173	118	5186	5464
POCATELLO	11	46	108	521	943	1001	1172	1026	999	615	219	143	6885	7068
ILLINOIS														
CAIRO	0	0	68	146	404	730	930	457	320	184	84	2	3331	3833
CHICAGO O'HARE	1	0	147	303	531	1033	1392	859	861	411	285	17	5660	6497
CHICAGO MIDWAY	2	0	155	279	532	1029	1389	840	774	405	264	15	5585	6427
MOLINE	9	0	162	297	594	1072	1413	855	731	385	235	2	5755	6595
PEORIA	13	1	171	306	596	1069	1404	868	648	351	221	5	5653	6598
ROCKFORD	12	0	225	376	678	1172	1499	986	813	473	296	15	6546	6845
SPRINGFIELD	10	0	125	253	528	973	1280	732	601	321	188	2	5013	5528
INDIANA														
EVANSVILLE	3	0	75	223	484	861	1100	628	447	275	139	7	4202	4624
FORT WAYNE	8	4	173	346	546	1036	1338	856	656	404	225	11	5593	6209
INDIANAPOLIS	8	0	167	288	551	992	1265	754	564	363	203	15	5126	5577
SOUTH BEND	13	1	175	300	503	992	1338	856	658	407	253	9	5505	6402
IOWA														
BURLINGTON	6	0	151	292	587	1072	1357	805	697	358	212	11	5548	6149
DES MOINES	9	0	148	267	637	1085	1297	890	780	302	160	4	5570	6710
DUBUQUE	24	0	245	393	724	1198	1502	1069	877	461	294	15	6743	7277
SIOUX CITY	1	0	204	328	850	1223	1358	907	881	361	218	19	6346	6953
WATERLOO	21	1	262	411	770	1224	1495	1005	897	441	263			
KANSAS														
CONCORDIA	0	0	135	208	701	968	1115	657	707	310	175	2	4978	5563
DODGE CITY	0	0	92	190	701	845	986	574	431	249	181	3	4452	5246
GOODLAND	0	4	229	290	823	909	998	724	815	414	269	14	5379	6119
TOPEKA	2	0	137	230	581	941	1148	639	599	269	178	5	4729	5543
WICHITA	0	0	98	201	596	892	1015	562	575	238	173	2	4352	4687
KENTUCKY														
COVINGTON	5	0	142	244	474	848	1168	670	558	321	176	5	4611	5070
LEXINGTON	0	0	128	249	488	895	1130	606	468	339	158	2	4463	4729
LOUISVILLE	0	0	73	205	431	801	1040	562	405	266	111	1	3895	4640
LOUISIANA														
ALEXANDRIA	0	0	12	51	274	508	569	202	177	35	4	0	1829	2200
BATON ROUGE	0	0	6	24	246	446	507	189	118	13	0	0	1549	1670
LAKE CHARLES	0	0	0	19	212	414	458	167	122	9	0	0	1401	1498
NEW ORLEANS	0	0	6	16	222	417	445	205	98	21	0	0	1430	1465
SHREVEPORT	0	0	4	39	286	492	551	186	702	38	17	0	1815	2167
MAINE														
CARIBOU	19	93	310	700	960	1674	1849	1489	1302	793	426	123	9738	9632
PORTLAND	13	59	230	480	653	1258	1522	1061	1030	594	389	94	7383	7498
MARYLAND														
BALTIMORE	0	0	50	156	397	853	1050	603	518	293	133	11	4064	4729
MASSACHUSETTS														
BLUE HILL OBS	3	31	156	327	502	1061	1327	895	947	450	254	50	5903	6345
BOSTON	0	8	70	239	395	941	1198	800	733	331	166	16	4897	5621
WORCHESTER	2	47	223	413	586	1161	1412	972	920	511	310	60	6617	6848
MICHIGAN														
ALPENA	43	72	334	488	724	1267	1621	1197	1061	612	430	68	7917	8518
DETROIT	0	0		296	459	1037	1308	864	724	445	230	6		6228
DETROIT METRO	4	0	178	375	537	1107	1413	914	757	473	269	5	6033	6619
FLINT	8	2	225	355	525	1117	1448	978	809	518	322	16	6323	7041
GRAND RAPIDS	16	5	242	382	602	1161	1420	980	835	526	342	18	6529	6801
HOUGHTON LAKE	44	68	333	472	720	1272	1575	1180	1054	590	434	53	7795	8347
LANSING	11	13	266	402	593	1149	1469	1011	826	528	338	30	6632	6904
MARQUETTE C	49	45	317	455	762	1290	1525	1120	1128	653	506	94	7944	8351
MUSKEGON	16	5	249	364	565	1066	1275	942	841	561	400	24	6308	6890
SAULT STE MARIE	64	70	373	537	871	1394	1686	1333	1299	746	534	100	9007	9193
MINNESOTA														
DULUTH	46	129	418	561	1003	1642	1867	1279	1325	667	440	101	9478	9756
INTERNATIONAL FALLS	41	118	426	622	1085	1801	2025	1463	1475	659	420	83	10218	10547
MINNEAPOLIS	15	7	231	387	818	1346	1650	1074	1031	405	195	11	7170	8159
ROCHESTER	19	7	273	380	821	1311	1615	1059	1021	468	283	22	7279	8227
ST CLOUD	17	29	342	524	985	1533	1828	1238	1207	501	303	32	8509	8868
MISSISSIPPI														
JACKSON	0	0	26	59	306	543	635	252	201	59	18	0	2097	2300
MERIDIAN	0	0	22	108	349	589	686	323	236	80	51	0	2444	2388
MISSOURI														
COLUMBIA REGIONAL	2	0	149	254	528	916	1121	644	566	307	193	2	4682	5078
KANSAS CITY	0	0	142	226	567	954	1155	640	616	277	178	6	4761	5161
ST JOSEPH	2		134	235	565	982	1150	716	652	270	181	6		5440
ST LOUIS	2	0	110	228	498	910	1137	619	505	288	158	0	4455	4750
SPRINGFIELD	0	0	152	245	515	818	997	533	460	245	186	8	4151	4570
MONTANA														
BILLINGS	1	31	185	536	955	1095	1186	926	1015	559	265	138	6892	7265
GLASGOW	5	68	260	613	1042	1437	1583	1022	1099	510	215	109	7963	8469
GREAT FALLS	12	60	235	592	961	1122	1192	994	1030	565	250	165	7178	7652
HAVRE	7	49	257	597	1046	1245	1313	915	1055	492	217	120	7313	8687
HELENA	14	119	322	666	1045	1199	1236	1023	1064	649	331	257	7925	8170
KALISPELL	15	133	306	654	1040	1160	1261	1037	1028	598	354	271	7857	8554
MILES CITY	0	20	211	546	1013	1369	1437	941	999	486	195	81	7238	7889
MISSOULA	9	116	263	657	1032	1213	1141	959	929	554	302	258	7433	7931
NEBRASKA														
GRAND ISLAND	0	0	178	296	870	1166	1251	791	808	354	198	11	5923	6420
LINCOLN	0	0	168	269	759	1079	1253	810	792	328	206	11	5677	6218
NORFOLK	2	0	207	326	877	1247	1343	900	854	352	191	15	6314	6981
NORTH PLATTE	6	0	228	437	1035	1191	1460	929	956	521	363	70	7196	6743
OMAHA	0	0	141	251	695	1051	1219	791	757	261	177	4	5347	6049
SCOTTSBLUFF	0	11	193	434	873	1019	1233	799	874	469	222	46	6175	6774
VALENTINE	5	5	231	435	1008	1214	1348	907	969	485	268	58	6933	7300

MONTHLY AND SEASONAL HEATING DEGREE DAYS

(Base 65°F) 1975-1976

State and Station	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total for Season	Normals . July-June
NEVADA														
ELKO	8	77	160	579	970	1094	1209	927	967	701	286	177	7156	7483
ELY	19	81	217	617	982	1123	1194	985	1058	749	340	226	7591	7814
LAS VEGAS	0	0	0	73	354	516	553	339	357	124	1	0	2317	2601
RENO	26	65	51	477	868	961	1012	863	821	610	224	138	6116	6042
WINNEMUCCA	13	41	59	474	855	925	982	718	841	568	139	71	5696	6629
NEW HAMPSHIRE														
CONCORD	10	78	200	532	747	1330	1672	1162	1019	565	356	60	7791	7360
MT WASHINGTON CBS	415	513	780	1009	1197	1735	1935	1638	1591	1233	967	495	13559	13678
NEW JERSEY														
ATLANTIC CITY	0	2	108	251	505	904	1128	733	668	409	242	55	5005	4946
ATLANTIC CITY U	0	0	49	188	422	814	994	664	612	356	212	29	4340	4693
NEWARK	0	1	59	195	400	913	1177	738	645	338	141	17	4624	5034
TRENTON U	0	4	67	194	380	870	1121	678	604	337	142	21	4418	4947
NEW MEXICO														
ALBUQUERQUE	0	0	47	256	664	905	979	622	634	304	99	1	4511	4292
CLAYTON	0	0	158	270	718	811	938	637	716	341	228	13	4830	5207
ROSWELL	0	0	48	104	462	662	755	334	334	90	36	0	2825	3697
NEW YORK														
ALBANY	M	19	173	357	580	1199	1511	964	871	472	315	43	6504	6888
BINGHAMTON	0	39	250	415	604	1192	1487	999	910	554	374	50	6874	7285
BUFFALO	3	15	197	368	535	1134	1400	958	853	557	358	40	6418	6927
NEW YORK J	0	3	62	193	387	898	1163	723	630	360	167	18	4604	4848
NEW YORK KENNEDY	0	3	60	171	367	874	1140	756	672	348	195	28	4614	5184
NEW YORK LA GUARDIA	0	4	56	188	372	857	1118	695	618	320	134	14	4376	4909
ROCHESTER	4	14	194	365	525	1146	1395	914	858	507	300	35	6257	6719
SYRACUSE	3	32	230	357	545	1154	1449	936	872	509	329	47	6463	6678
NORTH CAROLINA														
ASHEVILLE	0	0	77	232	498	812	966	566	439	296	168	33	4087	4257
CAPE HATTERAS R	0	0	0	32	206	498	653	379	344	190	52	4	2258	2731
CHARLOTTE	0	0	13	103	347	694	789	425	321	192	68	12	2964	3218
GREENSBORO	0	0	31	121	391	765	895	454	357	199	74	20	3307	3825
RALEIGH	0	0	17	117	351	705	843	426	300	194	52	6	3011	3514
WILMINGTON	0	0	0	40	199	478	613	294	183	122	32	0	1961	2433
NORTH DAKOTA														
BISMARCK	9	39	295	550	1002	1419	1642	1087	1163	550	288	65	8109	9044
FARGO	14	22	284	492	1012	1550	1774	1257	1296	533	285	55	8574	9271
WILLISTON	1	60	299	632	1092	1522	1675	1226	1247	556	267	87	8664	9161
OHIO														
AKRON	2	1	183	344	519	971	1293	811	466	484	308	24	5606	6224
CINCINNATI ABBE OB	M	0	92	237	451	853	1139	626	469	310	138	7	4322	4844
CLEVELAND	5	4	187	345	532	1015	1336	836	614	493	309	25	5701	6154
COLUMBUS	0	M	110	321	520	973	1263	791	570	440	229	4	5221	5702
DAYTON U	2	0	130	292	492	957	1259	760	570	403	203	2	5070	5641
MANSFIELD	2	4	188	343	570	1078	1367	870	699	494	307	30	5952	5818
TOLEDO	7	6	227	406	585	1110	1393	927	717	497	277	16	6168	6381
YOUNGSTOWN	8	8	189	389	559	1063	1391	873	672	468	313	22	5955	6426
OKLAHOMA														
OKLAHOMA CITY	0	0	64	126	430	713	801	367	406	128	100	0	3135	3695
TULSA	0	M	57	146	429	762	855	402	407	126	109	0	3293	3680
OREGON														
ASTORIA	133	153	183	429	558	624	642	640	651	483	374	269	5141	5295
BURNS U	39	107	123	599	934	1054	1150	998	949	687	339	262	7241	7212
EUGENE	18	56	40	302	557	676	707	664	636	478	316	210	4660	4739
MEDFORD	18	18	14	416	706	789	807	712	679	503	238	127	5027	4930
PENDLETON	0	12	43	332	673	751	791	782	679	436	206	89	4794	5240
PORTLAND	24	41	48	354	565	686	698	658	432	437	258	155	4556	4792
SALEM	37	84	79	409	624	708	743	709	693	529	356	243	5214	4852
SEXTON SUMMIT R	109	166	71	610	827	813	757	840	895	736	472	363	6659	6430
PACIFIC AREA														
GUAM TAGUAC R	0	M	0	0	0	0	0	0	0	M	0	0	0	0
JOHNSTON	0	0	0	M	0	0	0	0	0	0	0	0	0	
KOROR R	0	0	M	0	0	0	0	0	0	0	0	0	0	0
KWAJALEIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAJURO	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAGO PAGO	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PONAPE R	0	0	0	0	0	0	0	0	0	0	0	0	0	M
TRUK MOEN ISLAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WAKE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YAP R	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PENNSYLVANIA														
ALLENTOWN	0	7	122	257	482	995	1262	820		414	219	28		5827
ERIE	3	14	197	381	546	1057	1361	931	804	580	386	51	6311	6851
HARRISBURG	0	0	87	232	445	951	1150	730	639	354	193	23	4804	5224
PHILADELPHIA	0	0	45	152	372	866	1120	692	572	307	119	13	4258	4865
PITTSBURGH	0	0	192	362	554	989	1278	801	605	453	301	24	5559	5930
PITTSBURGH U	0	0	121	288	467	937	1220	734	558	419	226	5	4975	5278
SCRANTON	0	8	158	291	509	1043	1322	864	737	451	265	31	5679	6277
WILLIAMSPORT	1	M	168	324	529	1023	1305	850	704	393	217	19	5542	5981
RHODE ISLAND														
BLOCK ISLAND	0	6	76		427	944	1154	783	740	402	217	29		5771
PROVIDENCE	0	13	132	298	506	1013	1283	850	798	403	223	39	5558	5972
SOUTH CAROLINA														
CHARLESTON	0	0	0	40	221	466	624	265	146	94	15	3	1874	2146
CHARLESTON U	0	0	0	23	173	372	499	197	100	38	2	1	1405	1904
COLUMBIA	M	0	0	56	296	577	662	280	176	97	26	4	2174	2598
GRNVLLE-SPRTNBRG	0	0	24	116	361	683	828	415	345	190	85	15	3064	3103
SOUTH DAKOTA														
ABERDEEN	2	6	208	411	921	1465	1639	1101	1063	454	245	39	7534	8617
HURON	4	3	236	447	966	1346	1561	1057	1043	502	306	39	7510	8053
RAPID CITY	3	16	206	493	929	1096	1269	878	940	535	295	98	6758	7364
SIOUX FALLS	3	5	271	407	937	1377	1528	1023	929	418	261	23	7182	7838
TENNESSEE														
BRISTOL	0	0	46	188	451	768	970	509	402	297	134	9	3774	4306
CHATTANOOGA	0	M	53	152	474	785	936	470	340	180	87	2	3477	3505
KNOXVILLE	0	0	42	172	437	733	944	485	380	203	91	0	3487	3478
MEMPHIS	0	0	40	90	352	643	783	326	238	100	58	0	2630	3227
NASHVILLE	0	0	68	138	398	683	870	417	303	183	94	0	3154	3696
OAK RIDGE	0	0	79	203	490	768	1000	556	459	262	148	5	3970	3944

MONTHLY AND SEASONAL HEATING DEGREE DAYS

(Base 65°F)

State and Station	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total for Season	Normals July-June
TEXAS														
ABILENE	[illegible]	[illegible]	55	[illegible]	327	578	[illegible]	276	296	[illegible]	[illegible]	[illegible]	2428	[illegible]
AMARILLO	[illegible]	[illegible]	124	158	569	757	[illegible]	492	567	253	[illegible]	[illegible]	[illegible]	[illegible]
AUSTIN	[illegible]	[illegible]	1	27	204	[illegible]	476	158	173	19	[illegible]	[illegible]	[illegible]	[illegible]
BROWNSVILLE	[illegible]	[illegible]	[illegible]	[illegible]	74	180	215	74	22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CORPUS CHRISTI	[illegible]	[illegible]	[illegible]	[illegible]	107	[illegible]	275	94	45	[illegible]	[illegible]	[illegible]	773	[illegible]
DALLAS FT WORTH	[illegible]	[illegible]	[illegible]	33	266	500	[illegible]	217	222	48	20	[illegible]	[illegible]	[illegible]
DEL RIO	[illegible]	[illegible]	[illegible]	16	180	361	[illegible]	125	76	[illegible]	5	[illegible]	[illegible]	[illegible]
EL PASO	[illegible]	[illegible]	20	66	399	640	[illegible]	351	278	91	26	[illegible]	2567	[illegible]
GALVESTON	[illegible]	[illegible]	[illegible]	[illegible]	126	[illegible]	355	128	82	[illegible]	0	[illegible]	1004	1224
HOUSTON INTERCON	[illegible]	[illegible]	[illegible]	21	217	[illegible]	441	178	155	26	[illegible]	[illegible]	1449	[illegible]
LUBBOCK	[illegible]	[illegible]	[illegible]	122	436	[illegible]	[illegible]	[illegible]	[illegible]	116	57	[illegible]	3056	3545
MIDLAND	[illegible]	[illegible]	[illegible]	[illegible]	340	[illegible]	652	258	261	73	38	[illegible]	2304	2621
PORT ARTHUR	[illegible]	[illegible]	[illegible]	16	209	413	[illegible]	170	[illegible]	16	0	[illegible]	1416	1518
SAN ANGELO	[illegible]	[illegible]	[illegible]	[illegible]	320	[illegible]	[illegible]	251	237	48	30	[illegible]	[illegible]	2240
SAN ANTONIO	[illegible]	[illegible]	1	21	214	394	[illegible]	166	143	11	[illegible]	[illegible]	1424	[illegible]
VICTORIA	[illegible]	[illegible]	[illegible]	6	165	[illegible]	364	120	95	2	[illegible]	[illegible]	1068	1227
WACO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
WICHITA FALLS	[illegible]	[illegible]	[illegible]	27	230	[illegible]	558	[illegible]	[illegible]	38	[illegible]	[illegible]	1727	2058
UTAH														
MILFORD	[illegible]	[illegible]	[illegible]	87	338	[illegible]	[illegible]	295	318	73	40	[illegible]	2499	[illegible]
SALT LAKE CITY	[illegible]	[illegible]	[illegible]	527	[illegible]	[illegible]	[illegible]	880	1006	602	207	[illegible]	[illegible]	[illegible]
WENDOVER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
VERMONT														
BURLINGTON	[illegible]	45	[illegible]	[illegible]	681	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
VIRGINIA														
LYNCHBURG	[illegible]	[illegible]	[illegible]	[illegible]	432	[illegible]	[illegible]	[illegible]	443	273	132	[illegible]	3945	[illegible]
NORFOLK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	671	[illegible]	443	362	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
RICHMOND	[illegible]	[illegible]	[illegible]	[illegible]	356	770	[illegible]	[illegible]	386	227	[illegible]	[illegible]	[illegible]	[illegible]
ROANOKE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
WALLOPS ISLAND	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
WASHINGTON														
OLYMPIA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
QUILLAYUTE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SEATTLE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SEATTLE-TACOMA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SPOKANE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
STAMPEDE PASS R	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
WALLA WALLA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
YAKIMA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
WEST INDIES														
SAN JUAN P.R.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
WEST VIRGINIA														
BECKLEY	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CHARLESTON	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ELKINS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
HUNTINGTON	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PARKERSBURG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
WISCONSIN														
GREEN BAY	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LA CROSSE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MADISON	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MILWAUKEE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
WYOMING														
CASPER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CHEYENNE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LANDER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SHERIDAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

COOLING DEGREE DAYS

(Base 65°F.)

JUNE 1976

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM	290	398	669
HUNTSVILLE	287	325	604
MOBILE	454	950	989
MONTGOMERY	367	502	801
ALASKA			
ANCHORAGE	0	0	0
ANNETTE	0	0	6
BARROW	0	0	0
BARTER ISLAND	0	0	0
BETHEL	0	0	0
BETTLES	2	2	6
BIG DELTA	4	4	20
COLD BAY	0	0	0
FAIRBANKS	2	2	31
GULKANA	0	0	9
HOMER	0	0	0
JUNEAU	0	0	0
KING SALMON	0	0	0
KODIAK	0	0	0
KOTZEBUE	0	0	0
MC GRATH	0	0	6
NOME	0	0	0
ST. PAUL ISLAND	0	0	0
SUMMIT	0	0	0
TALKEETNA	1	1	6
UNALAKLEET			
VALDEZ	0	0	0
YAKUTAT	0	0	0
ARIZONA			
FLAGSTAFF	15	15	15
PHOENIX	692	1400	1119
TUCSON	557	968	905
WINSLOW	209	254	279
YUMA	668	1334	1368
ARKANSAS			
FORT SMITH	239	339	628
LITTLE ROCK	292	426	616
CALIFORNIA			
BAKERSFIELD	447	828	610
BISHOP	157	214	256
BLUE CANYON	43	55	20
EUREKA U	0	0	0
FRESNO	254	434	442
LONG BEACH	215	330	158
LOS ANGELES	111	151	94
LOS ANGELES U	203	290	225
MT SHASTA R	17	18	36
OAKLAND	75	96	21
RED BLUFF	347	568	515
SACRAMENTO	278	454	309
SANDBERG R	129	165	86
SAN DIEGO	147	205	118
SAN FRANCISCO	88	109	18
SAN FRANCISCO U	82	98	5
SANTA MARIA	72	79	5
STOCKTON	248	329	314
COLORADO			
ALAMOSA	1	1	9
COLORADO SPRINGS	66	66	97
DENVER	112	115	110
GRAND JUNCTION	195	227	256
PUEBLO	163	172	232
CONNECTICUT			
BRIDGEPORT	205	221	128
HARTFORD	257	322	126
DELAWARE			
WILMINGTON	260	322	244
DIST. OF COLUMBIA			
WASHINGTON DULLES	208	260	245
WASHINGTON NATIONAL	383	566	404
FLORIDA			
APPALACHICOLA	380	711	978
DAYTONA BEACH	378	930	1082
FORT MYERS	423	1343	1483
JACKSONVILLE	350	724	952
KEY WEST	476	1996	2147
LAKELAND U	431	1348	1326
MIAMI	429	1734	1661
ORLANDO	449	1306	1271
PENSACOLA	394	817	1031
TALLAHASSEE	395	785	977
TAMPA	424	1226	1345
WEST PALM BEACH	404	1435	1517
GEORGIA			
ATHENS	282	434	578
ATLANTA	273	379	514
AUGUSTA	320	528	705
COLUMBUS	351	563	771
MACON	347	597	856
ROME	260	359	507
SAVANNAH	331	628	851
HAWAII			
HILO	268	1346	1321
HONOLULU	402	1868	1758
KAHULUI	329	1567	1567
LIHUE	420	1896	1533
IDAHO			
BOISE	66	85	108
LEWISTON	62	77	102
POCATELLO	46	47	49
ILLINOIS			
CAIRO U	296	449	603
CHICAGO O HARE	178	220	173
CHICAGO MIDWAY	221	275	244
MOLINE	175	213	257
PEORIA	176	218	282
ROCKFORD	137	161	190
SPRINGFIELD	228	293	337
INDIANA			
EVANSVILLE	258	351	438
FORT WAYNE	193	228	206
INDIANAPOLIS	198	234	290
SOUTH BEND	192	243	183
IOWA			
BURLINGTON	158	194	286
DES MOINES	203	258	250
DUBUQUE	112	124	154
SIOUX CITY	181	220	260
WATERLOO	131	151	181
KANSAS			
CONCORDIA	246	285	344
DODGE CITY	286	341	380
GOODLAND	149	171	205
TOPEKA	242	317	393
WICHITA	270	323	486
KENTUCKY			
COVINGTON	207	300	312
LEXINGTON	193	258	366
LOUISVILLE	243	362	376
LOUISIANA			
ALEXANDRIA	399	757	774
BATON ROUGE	394	821	983
LAKE CHARLES	400	854	1034
NEW ORLEANS	404	892	1030
SHREVEPORT	326	640	876
MAINE			
CARIBOU	104	110	R
PORTLAND	128	130	22
MARYLAND			
BALTIMORE	315	425	295
MASSACHUSETTS			
BLUE HILL OBS R	184	245	79
BOSTON	276	344	137
WORCESTER	154	198	74
MICHIGAN			
ALPENA	96	114	33
DETROIT	247	311	182
DETROIT METRO	182	222	165
FLINT	155	180	110
GRAND RAPIDS	158	189	141
HOUGHTON LAKE	92	105	59
LANSING	162	191	137
MARQUETTE U	75	78	15
MUSKEGON	113	130	100
SAULT STE MARIE	29	34	11
MINNESOTA			
DULUTH	53	53	14
INTERNATIONAL FALLS	80	80	30
MINNEAPOLIS	223	251	148
ROCHESTER	126	140	127
ST CLOUD	122	127	93
MISSISSIPPI			
JACKSON	357	618	840
MERIDIAN	268	402	821
MISSOURI			
COLUMBIA REGIONAL	160	203	371
KANSAS CITY	199	250	411
ST JOSEPH	224	281	394
ST LOUIS	239	319	461
SPRINGFIELD	173	228	395
MONTANA			
BILLINGS	21	22	67
GLASGOW	41	50	70
GREAT FALLS	51	57	36
HAVRE	36	38	65
HELENA	14	14	20
KALISPELL	15	15	9
MILES CITY	106	123	133
MISSOULA	21	21	18
NEBRASKA			
GRAND ISLAND	196	234	265
LINCOLN	216	257	313
NORFOLK	200	243	232
NORTH PLATTE	62	67	191
OMAHA	240	295	332
SCOTTSBLUFF	146	164	134
VALENTINE	157	169	152
NEVADA			
ELKO	11	11	28
ELY	18	18	22
LAS VEGAS	500	963	891
RENO	25	25	46
WINNEMUCCA	68	75	61
NEW HAMPSHIRE			
CONCORD	184	211	57
MT WASHINGTON OBS	0	0	0
NEW JERSEY			
ATLANTIC CITY	201	229	193
ATLANTIC CITY U	160	176	148
NEWARK	281	361	244
TRENTON U	283	369	239
NEW MEXICO			
ALBUQUERQUE	260	298	364
CLAYTON	152	159	181
ROSWELL	436	659	514
NEW YORK			
ALBANY	184	214	141
BINGHAMTON	119	143	82
BUFFALO	149	164	93
NEW YORK U	270	359	256
NEW YORK KENNEDY	187	201	171
NEW YORK LA GUARDIA	293	368	245
ROCHESTER	189	222	125
SYRACUSE	141	159	121
NORTH CAROLINA			
ASHEVILLE	135	140	248
CAPE HATTERAS R	268	454	409
CHARLOTTE	238	370	513
GREENSBORO	212	356	428
RALEIGH	304	525	432
WILMINGTON	336	690	651
NORTH DAKOTA			
BISMARCK	137	140	97
FARGO	164	168	99
WILLISTON	95	99	73
OHIO			
AKRON	139	169	168
CINCINNATI ABBe OB	204	308	367
CLEVELAND	167	207	164
COLUMBUS	174	223	230
DAYTON U	175	234	268
MANSFIELD	117	150	220
TOLEDO	155	196	186
YOUNGSTOWN	145	196	131
OKLAHOMA			
OKLAHOMA CITY	300	419	548
TULSA	307	400	574
OREGON			
ASTORIA	3	3	0
BURNS U	15	16	30
EUGENE	12	15	25
MEDFORD	34	40	84
PENDLETON	53	73	106
PORTLAND	23	27	45
SALEM	6	6	26
SEXTON SUMMIT R	13	16	7
PACIFIC AREA			
GUAM TAGUAC R	442	2386	2429
JOHNSTON	426	2163	2313
KOROR R	517	3082	2973
KWAJALEIN	491	2946	3011
MAJURO	460	2706	2914
PAGO PAGO	422	2727	2726
PONAPE R	470	2880	2837
TRUK MOEN ISLAND	483	2948	2935
WAKE	525	2492	2455
YAP R	454	2761	2930
PENNSYLVANIA			
ALLENTOWN	262	319	194
ERIE	98	113	81
HARRISBURG	283	352	283
PHILADELPHIA	326	448	290
PITTSBURGH	134	174	180
SCRANTON	198	260	145
WILLIAMSPORT	223	278	180
RHODE ISLAND			
BLOCK ISLAND	166	194	25
PROVIDENCE	196	249	86
SOUTH CAROLINA			
CHARLESTON	329	670	730
CHARLESTON U	358	804	833
COLUMBIA	295	612	733
GRNVLLE-SPRTNBRG	213	288	520
SOUTH DAKOTA			
ABERDEEN	193	198	120
HURON	170	172	160
RAPID CITY	83	87	125
SIOUX FALLS	226	252	175
TENNESSEE			
BRISTOL	185	225	335
CHATTANOOGA	241	310	537
KNOXVILLE	273	351	523
MEMPHIS	349	548	692
NASHVILLE	257	390	549
OAK RIDGE	187	211	444
TEXAS			
ABILENE	424	697	838
AMARILLO	223	268	417
AUSTIN	451	894	1042
BROWNSVILLE	507	1487	1632
CORPUS CHRISTI	505	1348	1359
DALLAS FT WORTH	421	702	823
DEL RIO	534	1161	1332
EL PASO	441	686	744
GALVESTON	457	918	1083
HOUSTON INTERCON	408	823	1070
LUBBOCK	369	508	550
MIDLAND	398	652	771
PORT ARTHUR	418	874	1027
SAN ANGELO	449	711	978
SAN ANTONIO	451	967	1114
VICTORIA	478	1095	1176
WACO	469	848	971
WICHITA FALLS	395	633	841
UTAH			
MILFORD	55	55	98
SALT LAKE CITY	151	185	154
WENDOVER	198	241	204
VERMONT			
BURLINGTON	185	228	84
VIRGINIA			
LYNCHBURG	190	287	331
NORFOLK	337	574	409
RICHMOND	307	514	405
ROANOKE	179	289	298
WALLOPS ISLAND	194	227	256
WASHINGTON			
OLYMPIA	2	2	14
QUILLAYUTE	0	0	0
SEATTLE	6	11	28
SEATTLE-TACOMA	14	26	11
SPOKANE	24	24	47
STAMPEDE PASS R	0	0	0
WALLA WALLA U	64	78	134
YAKIMA	27	27	98
WEST INDIES			
SAN JUAN P.R.	506	2478	2240
WEST VIRGINIA			
BECKLEY	90	137	132
CHARLESTON	218	348	338
ELKINS	105	122	109
HUNTINGTON	224	359	333
PARKERSBURG U	180	284	315
WISCONSIN			
GREEN BAY	129	138	88
LA CROSSE	167	179	102
MADISON	136	156	114
MILWAUKEE	144	173	88
WYOMING			
CASPER	29	29	60
CHEYENNE	7	7	45
LANDER	41	42	66
SHERIDAN	28	28	58

STORM SUMMARY

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS											
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE									
								PROP. ETY	CROPS			PROP. ETY	CROPS			PROP. ETY	CROPS												
Alabama																													
Alaska *																													
Arizona *																													
Arkansas	1	1			3									1															
California *																													
Colorado	13	2			4																								
Connecticut	1	1			1																								
Delaware	1	1			2																								
Florida	9	7			5									4	8														
Georgia														3	1														
Hawaii *																													
Idaho															2	2													
Illinois	4	2	2	23	6										1														
Indiana	5	3		1	6					1																			
Iowa	12	4		17	7																								
Kansas	3	3			5									1															
Kentucky	1	1		1	3									2	1														
Louisiana														1	1														
Maine															1														
Maryland & DC																													
Massachusetts																													
Michigan	7	3			5																								
Minnesota	8	3	1	16	6																								
Mississippi	3	2		2	5																								
Missouri																													
Montana	2	2			6																								
Nebraska	5	4		23	6																								
Nevada *																													
New Hampshire																													
New Jersey														2	2														
New Mexico *																													
New York	6	4		7	5									1	1														
North Carolina	2	2			5										1														
North Dakota	38	7		1	5																								
Ohio	2	2			5										1														
Oklahoma	3	2			4																								
Oregon *																													
Pacific *																													
Pennsylvania	4	4			4									1	8														
Puerto Rico *																													
Rhode Island *																													
South Carolina	2	2		2	4										1														
South Dakota	3	3			4																								
Tennessee														1															
Texas	11	8		1	4																								
Utah																													
Vermont																													
Virginia	1	1			4																								
Virgin Islands *																													
Washington															1														
West Virginia																													
Wisconsin	10	3		2	5																								
Wyoming	12	6			4									1															

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

JUNE 1976

Herbert J. Thompson, Office of Hydrology

One of the major floods of history occurred during June as a result of the failure of Teton Dam in southeastern Idaho. Record stages occurred along the Teton, Henry's Fork, and Snake Rivers. Losses have been estimated at $1 billion with thousands of acres of valuable farmland ruined. Fortunately, only 11 lives were lost.

Several major flash and urban flood events occurred. Losses in Houston, TX, approached $30 million with 7 deaths; losses in the Black Hills of South Dakota were $5.6 million; losses in the Chicago Metropolitan area were $1.8 million; and losses in the headwaters of the Susquehanna Basin in New York were estimated at $11 million. Several other less serious flash floods were reported in various sections of the country.

Except for the Snake River Basin there was no serious river flooding during June. Minor to moderate flooding occurred in several locations including New Jersey the South Atlantic Coastal Drainage, Iowa, several locations in the Ohio River Basin, the White Basin in Arkansas, and the West Gulf Drainage in Texas. The record spring flood on the Souris River in North Dakota ended during June.

These significant events are discussed in more detail below.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	HUDSON BAY DRAINAGE		
Souris River	The flooding on the Souris River, which caused record stages during April, ended during June. The river went below flood stage near Westhope, ND, the lowermost station, on the 24th after 86 days over flood stage at that point. Heavy rains occurred over the basin the 11th-13th with up to more than 5 inches in the Canadian headwaters. No flooding resulted during June, but some flooding occurred on the lower Souris during July.	G	G
	GREAT LAKES - ST. LAWRENCE DRAINAGE		
Lake Michigan Drainage	Serious flash flooding occurred in the western section of Chicago metropolitan area on the 13th. Portions of Cook and DuPage Counties were affected. Twenty-four hour rainfall amounts of 4 to 6 inches were reported with unofficial amounts of up to 8 inches. About 1,200 families were evacuated with 450 homes receiving extensive damage and 650 lesser damage. Residential losses amounted to $1.5 million. Damage to a city hall was $300,000.	0	1,800
Lake Ontario Drainage	Flash flooding occurred in the Oakfield area of Genesee County in New York State on the 23d. Up to 8 inches of rain fell in a 3-hour period from 5:30 to 8:30 p.m. Damage was to crops, basements, and highways. No reporting stations went over flood stage.	0	N.A.
	ATLANTIC SLOPE DRAINAGE		
Hudson River Basin	Serious flash flooding occurred in Rensselaer County, New York, and adjoining Berkshire County, Maine, on the 20th. Hancock, MA, reported 5.7 inches in four hours and unofficial reports of 6 inches in six hours were received. No river flooding was reported.	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

JUNE 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	ATLANTIC SLOPE DRAINAGE-Cont'd		
New Jersey Coastal Drainage	Heavy rainfall over northern New Jersey on the 30th caused some flooding. Amounts of as much as 5.5 inches were reported. More than 2 feet of flooding occurred on the Saddle River at Lodi and about a foot of flooding on the Rockaway River at Boonton, the latter entirely in July.	0	N.A.
Susquehanna River Basin	Major flash flooding occurred over southeast Steuben County and the western edge of Chemung County on the evening of the 19th and around daybreak on the 20th. From 3 to 4 inches of rain fell in the Lindley and Corning, NY, areas between about 5 and 9 p.m. on the 19th and another 1 to 1.5 inches in an hour to an hour and a half on the morning of the 20th. Total damage was estimated at $11 million in Steuben and Chemung Counties. Most damage was to washed out roads and bridges; no fatalities or serious injuries were reported. Minor river flooding followed the flash flooding on the 20th and 21st along the Chemung River from Elmira downstream. In the lower reaches of the basin in Pennsylvania streams crested about half bankfull.	0	11,000
South Atlantic Coastal Drainage	Rainfall was above normal over portions of the area with totals of 8 to 12 inches over the mountainous headwaters for the month. Lowland flooding occurred along several streams, including Black Creek near Florence, SC, the Lumber River at Lumberton, NC, the Pee Dee River at Pee Dee, SC, the Ogeechee River at Eden, GA, and the North Fork Edisto and Edisto Rivers. Losses were estimated at $2,000 along Black Creek and $5,000 in the Pee Dee Basin. Flooding on the lower Savannah River which began late in May continued through June at Clyo, GA, aided by reservoir releases and above normal rainfall. The crest at Clyo was nearly 5 feet over flood stage on the 14th.	0	N.A.
	EAST GULF OF MEXICO DRAINAGE		
	The only stream flooding in the East Gulf Drainage was on the Ochlockonee and Appalachicola Rivers. Both streams were high at the end of May and rains of 4 to 5 inches the first 5 days of June caused minor flooding on the Ochlockonee and a crest nearly 3 feet over flood stage at Blountstown, FL, on the Appalachicola. On the 4th 4 inches of rain in one hour caused urban flooding in Montgomery, AL, with $100,000 damage to drainage ditches, storm sewers and culverts. On the 19th 3 inches of rain in 2.5 hours caused street flooding in Birmingham, AL, with no damage reported.	0	100
	UPPER MISSISSIPPI RIVER BASIN		
	Above normal temperatures and below normal pre-	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	UPPER MISSISSIPPI RIVER BASIN-Cont'd		
	cipitation was the general rule over the Mississippi Basin above the mouth of the Ohio River. The only flooding reported was in Iowa. Locally heavy rains of 2 to 3 inches on the 13th and 14th caused crests about 3 feet over flood stage on the Iowa River at Marshalltown and about 2 feet over flood stage on the South Skunk River at Ames and Oskaloosa. Rains of 3 to 4 inches on the 27th-28th caused street flooding in Des Moines, about 3 feet of flooding on the South Skunk River at Oskaloosa, and minor flooding on Cedar Creek at Bussey.		
	MISSOURI RIVER BASIN		
Upper Missouri Basin	Flash flooding was reported west of Dickinson, ND, on the 4th. Heavy rains in the headwaters caused minor flooding on the Gallatin River on the 22d-23d.	0	N.A.
Cheyenne River Basin	Major flash flooding occurred in the Black Hills area of South Dakota (headwaters of the Cheyenne River) on the 14th. Rainfall of more than 4 inches covered a rather large portion of the Black Hills area, but the heaviest rainfall of 8 inches or more occurred in a narrow band roughly 10 by 20 miles in size lying northwest to southeast and and centered over Deadwood, SD. Maximum rainfall reported in this area was 13.89 inches. Rain began at 10 p.m. on the 13th and ended at 2 a.m. on the 15th with about two-thirds of the total falling between noon and 9 p.m. on the 14th. The storm resulted from a stalled low pressure system at the surface which had moved up from eastern Colorado reinforced by a cold core low aloft which had moved south and apparently remained stationary over Wyoming during the storm. A record stage of 10.54 feet was reported by the U.S. Geological Survey on Spearfish Creek at Spearfish, SD (Flood Stage 9 feet). The previous record stage of 10.53 feet occurred in 1965. No other reporting stations went over flood stage. The major damage occurred in Sturgis, SD, in Meade County with losses estimated at $3.6 million. Other losses were: Laurence County, $1 million; Butte County, $300,000; Crook County, Wyoming, $100,000; and Forest Service roads and bridges, $600,000. No flood-related deaths were reported. Most damage was to public roads and bridges and railroad tracks and bridges. In Laurence County, 2 homes and 2 mobile homes were destroyed and 8 severely damaged.	0	5,600
Lower Missouri Basin	More than 4 inches of rain over southwestern Iowa on the 13th-14th caused flooding on several streams. The Nishnabotna River crested more than 7 feet over flood stage at Hamburg. Although the East Branch of the Nishnabotna crested	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

JUNE 1976

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	MISSOURI RIVER BASIN-Cont'd		
	only slightly above flood stage at the reporting station, 2,000 acres were inundated along the stream and another 1,500 acres along Walnut Creek with $50,000 damage to fences. About 5 feet of flooding was reported on the Nodaway and upper Chariton Rivers in Iowa. Late in the month more than 3 inches of rain caused two periods of light flooding on the Little Blue River around Lake City, MO.		
	OHIO RIVER BASIN		
Allegheny River Basin	Flash flooding was reported along Taylors Run in Armstrong County just northeast of Pittsburgh, PA, on the 13th. Rainfall was estimated at 3 to 4 inches in 2 to 3 hours. About 30 homes and an industrial plant in Kelley's Station were flooded with $32,000 damage. A bridge was washed out, and State Route 66 was closed for a while. Several vehicles were washed away.	0	32
New River	Heavy rainfall occurred over the headwaters of the New River Basin during the middle of June. From 4 to over 5 inches were reported on the 16th-17th and another 3 to 5 inches on the 20th-21st. Minor flooding occurred at Radford on the 21st shutting down the water treatment plant and necessitating clean-up operations. However, no equipment was damaged.	0	N.A.
Wabash River Basin	Two locally heavy storms on the 29th with rainfall in excess of 2 inches caused brief flooding along the Wabash River at Montezuma with crop damage of $500. Urban flooding occurred in Indianapolis. Flooding occurred early in June from the heavy rains in late May along the Patoka River. There are no reporting stations on this stream.	0	N.A.
Tennessee River Basin	Rainfall amounts of 4 to 7 inches over the French Broad River Basin above Rosman, NC, on the 19th-20th caused minor flooding at Rosman.		
	WHITE BASIN		
Cache, Black, and White Rivers	Flooding continued from May on the Cache River at Patterson, AR, ending on the 13th with a crest of 8.7 feet on the 4th. Flood stage there is 7 feet. Rains of 3 inches or more on the 16th-18th caused a renewal of flooding at Patterson which continued into July with a crest of 8.8 feet on the 24th. Heavy rains on the 24th-25th caused lowland flooding on the White River at Augusta, AR, which extended into July and on the Black River at Black Rock, AR. Damage was limited to field crops, mostly soybeans.	0	N.A.
	WEST GULF OF MEXICO DRAINAGE		
Sabine River	On the upper Sabine minor flooding occurred at	0	N.A.

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
	WEST GULF OF MEXICO DRAINAGE-Cont'd		
	Mineola, TX, on the 1st from a shower of over an inch just upstream. The lower Sabine was over flood stage for several days early in June as a result of rains of 3 to 6 inches on the 1st and releases from Toledo Bend Reservoir.		
Neches River Basin	Flooding which began late in April on the Angelina River at Lufkin, TX, ended on the 14th. Rains of 4 to 5 inches on the 1st caused minor flooding along Pine Island Bayou and the Neches River at Diboll, TX. The Neches at Evadale, TX, and Village Creek at Kountze, TX, were over banks as a result of this storm.		
Trinity and San Jacinto Rivers	Heavy showers on the 1st caused a brief period of minor flooding on the upper Trinity at Crandall and Dallas, TX. The lower Trinity received 3 to 4 inches of rain which caused a crest nearly 4 feet over flood stage at Moss Bluff, TX. The East Fork San Jacinto River crested more than 4 feet over flood stage near Cleveland, TX. A second period of less serious flooding due to releases from Lake Livingston began at Moss Bluff on the 23d and extended into July.	0	N.A.
Houston, Texas, Area	Major urban and flash flooding occurred over the southern half of the Houston metropolitan area on the 15th. Rainfall amounts of up to 13 inches were reported, most of which fell between 3 and 6 p.m. Sims, Buffalo, and Brays Bayous were streams affected. There is no reporting network on these streams. Peak discharge of Brays Bayou (Drainage Area 88.4 sq. mi.) was reported by the U.S. Geological Survey to be 29,000 c.f.s., the highest in 40 years of record, and exceeding the 100-year frequency. Damages occurred to hospitals, homes, commercial and industrial properties, and automobiles. There were 7 flood related deaths.	7	30,000
Brazos River Basin	Rains of 2 to 3 inches on the 1st caused about 2 feet of flooding along the Navasota tributary the first 10 days of June.	0	N.A.
Guadalupe River	Flooding which began early in May continued on the lower Guadalupe at Dupont, TX, with rains of 3 inches on the first causing a third crest about 6 feet over flood stage on the 6th.	0	N.A.
	PACIFIC SLOPE DRAINAGE		
Snake River Basin	A major flood disaster occurred in southeast Idaho on the 5th with the failure of the newly constructed Teton Dam on the Teton River in the headwaters of the Snake Basin. The reservoir was filling for the first time and contained 251,000 acre-feet of its 288,000 acre-feet capacity. About 173,000 acre-feet of water drained through the breach during the 143 minutes follow-	11	1,000,000

Basins and Streams	FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)

PACIFIC SLOPE DRAINAGE-Cont'd

ing the break and the reservoir was almost completely emptied within 12 hours. A wall of water 15 feet high moved down the Teton River at a rate of 10-15 miles per hour before spreading out over the upper Snake River plain near Rexburg.

Both of the U.S.G.S. gages below the dam on the Teton River were destroyed and crest stages have not yet been determined. The gage on the Henry's Fork near Rexburg was overtopped by several feet but the crest stage was determined as 22.5 feet, a new record, and more than 13 feet over flood stage. The previous record was 10.3 feet in 1970. Downstream on the main stem of the Snake new record stages also occurred. At Shelley the crest was 19.04 feet, as compared with 16.97 feet in 1918, and at Blackfoot a crest of 15.4 feet occurred, exceeding the previous record of 14.8, also in 1918. The snowmelt flood of 1894 was about the same magnitude as this flood but stages are not available.

Extensive flooding occurred along the Snake down to the American Falls Reservoir, which, with a capacity of 1,000,000 acre-feet, easily contained the flood wave. More than 100,000 acres of farmland were inundated with no prospects for a potato crop on about 40,000 acres this year. In addition, damage to irrigation systems interrupted the flow of water to another 400,000 acres. The Counties of Fremont, Madison, Bonneville, Jefferson, and Bingham were affected. About 10,000 people were evacuated from 2,900 homes. Damaged or destroyed were 450 farms, 700 homes, and 200 businesses. About 12,000 head of livestock were lost. Half a dozen communities suffered severe damage with 60 percent of the homes in Rexburg destroyed. However, the downstream cities of Idaho Falls, Shelley, and Blackfoot had sufficient warning to permit the construction of sandbag levees which prevented serious damage. There were 11 flood related deaths.

G Included in Previous Month (s) Report.

FLOOD STAGE DATA

(All dates in June unless otherwise specified)

River and station	Flood stage	Above flood stages –dates From–	To–	Crest Stage	Date
	Ft.			Ft.	
HUDSON BAY DRAINAGE					
Souris River:					
Towner, ND	12	Apr 1	8	56.65	Apr 22
Bantry 8 E, ND	11	Mar 24	8	14.51	Apr 22
Westhope 7 NE, ND	14	Mar 31	24	A19.19	Apr 27
ATLANTIC SLOPE DRAINAGE					
Saddle					
Lodi, NJ	5	30	Jul 1	7.32	Jul 1
Chemung:					
Elmira, NY	10	20	20	12.0	20
Chemung, NY	12	20	21	15.3	20
Black Creek:					
Florence, SC	10	20	20	10.0	20
		28	1/	11.7	29
Lumber:					
Lumberton, NC	9	22	28	10.3	25
Pee Dee:					
Pee Dee, SC	19	23	30	20.6	26
Congaree:					
St. Matthews 17 NW, SC	115	May 31	1	116.5	1
North Fork Edisto:					
Orangeburg, SC	9	24	26	8.5	25
Edisto:					
Givhans Ferry, SC	10	26	1/	12.6	Jul 9
Savannah:					
Millhaven-Wade 1 SE, GA	15	5	16	17.9	11
Clyo, GA	11	May 27	1/	15.9	14
Ogeechee:					
Eden, GA	9	25	29	9.9	27
EAST GULF OF MEXICO DRAINAGE					
Ochlockonee:					
Havana, FL	25	3	3	25.03	3
Apalachicola:					
Blountstown, FL	15	5	9	17.82	7
UPPER MISSISSIPPI RIVER BASIN					
Iowa River:					
Marshalltown, IA	13	14	15	16.16	15
South Skunk River:					
Ames, IA (Blo Squaw Cr)	10	14	15	12.05	14
Oskaloosa, IA	15	15	17	16.81	16
		28	29	17.90	28
Cedar Creek:					
Bussey, IA	16.5	28	28	17.27	28
MISSOURI BASIN					
Gallatin River:					
Logan, MT	7.5	22	23	7.93	23
Spearfish Creek:					
Spearfish, SD	9	U	U	10.54	15
West Nishnabotna River:					
Randolph, IA	19	14	14	19.65	14
East Nishnabotna River:					
Red Oak, IA	18	14	14	18.52	14
Nishnabotna River:					
Hamburg, IA (Rural FS)	18	14	16	25.45	14
Tarkio River:					
Fairfax, MO	17	14	14	18.18	14

River and station	Flood stage	Above flood stages –dates From–	To–	Crest Stage	Date
	Ft.			Ft.	
MISSOURI BASIN–Cont'd					
Nodaway River:					
Clarinda, IA	14	14	14	18.86	14
Little Blue River:					
Lake City, MO	18	23	25	20.02	24
		28	29	18.30	29
Chariton River:					
Chariton, IA	15	14	17	20.42	14
OHIO RIVER BASIN					
New:					
Radford, VA	14	21	21	14.24	21
Wabash:					
Montezuma, IN	14	30	U	#16.1	30
French Broad:					
Rosman, NC	8	20	20	9.39	20
WHITE BASIN					
Cache:					
Patterson, AR	7	May 29	13	8.7	4
		18	1/	8.8	24
Black:					
Black Rock, AR	14	25	27	15.7	25
White:					
Augusta, AR	26	27	1/	28.6	28
RED RIVER BASIN					
Sulphur:					
Hagansport, TX	44	18	20	#46.40	19
LOWER MISSISSIPPI BASIN					
Big Black:					
West, MS	12	18	91	13.5	18
WEST GULF OF MEXICO DRAINAGE					
Calcasieu:					
Hineston, LA	12	2	7	14.5	5
Sabine:					
Mineola, TX	14	1	1	#14.15	1
Dewevville, TX	14	4	9	14.34	6
Angelina:					
Lufkin, TX (near)	8	Apr 30	14	11.34	May 8
Village Creek:					
Kountze, TX (near)	12	1	6	15.43	3
Pine Island Bayou:					
Sour Lake, TX	25	4	U	25.58	6
Bevil Oaks, TX	17	4	10	17.7	7
Neches:					
Alto, TX (near)	16	20	24	#17.05	20
		27	1/	#17.30	Jul 2
Diboll, TX (near)	10	1	12	#10.97	8
		24	1/	#12.77	Jul 9
East Fork Trinity:					
Crandall, TX	13	1	1	#13.78	1
Trinity:					
Dallas, TX	30	1	1	#31.45	1
Liberty, TX	24	2	12	26.3	6
Moss Bluff, TX	4	1	20	# 7.5	8,9
		23	1/	5.65	28
East Fork San Jacinto:					
Cleveland, TX (near)	13	1	6	17.3	3
Navasota:					
Easterly, TX (near)	14	1	6	16.3	3
Bryan, TX (near)	12	1	10	14.0	4

FLOOD STAGE DATA

(All dates in June unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest	
		From	To	Stage	Date
	ft			ft	
WEST GULF OF MEXICO DRAINAGE--cont'd					
Guadalupe:					
Cuero, TX	20	May 7	10	A25.8	9
PACIFIC SLOPE DRAINAGE					
Henrys Fork:					
Rexburg, ID	9	5	7	11.5	7
Snake:					
Heise, ID	7	May 13	3	8.04	May 24
Shelley, ID	12	6	8	19.03	6
Blackfoot, ID	6	7	7	15.4	7

A See Previous Monthly Reports for Additional Crest Information.

River and station	Flood stage	Above flood stages -dates		Crest	
		From	To	Stage	Date
	ft			ft	

RAWINSONDE DATA

Average monthly values

Standard pressure surface mb	ALBANY, NY 1007 MB						ALBUQUERQUE, NM 838 MB						AMARILLO, TX 891 MB						* ANCHORAGE, AK 1010 MB						* ANNETTE, AK 1012 MB					
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	30	86	17.5	15.6	17	1.1	30	1,619	15.8	.9	12	2.7	30	1,095	15.9	10.6	20	2.4	30	45	9.7	5.5	18	2.7	30	37	9.0	6.2	10	.5
1000	27	157	16.7	13.9	19	1.4													28	135	9.7	3.6	19	3.4	30	139	8.4	6.0	12	.3
950	30	586	16.8	12.1	24	3.4													30	554	8.7	2.0	19	4.1	30	563	6.9	3.2	18	1.0
900	30	1,066	14.8	9.3	27	5.1													30	1,000	6.3	1.1	18	2.4	30	1,008	4.4	.8	18	1.7
850	30	1,538	11.8	6.7	27	5.7							30	1,497	17.8	8.2	21	7.5	30	1,466	3.6	-1.3	13	1.8	30	1,468	1.3	-3.2	18	2.1
800	30	2,034	9.0	2.5	28	6.2	30	2,016	17.3	.5	18	3.3	30	2,015	16.2	4.2	22	6.4	30	1,956	.9	-5.2	10	2.5	30	1,955	-.8	-6.7	19	1.8
750	30	2,566	6.1	-2.5	28	6.9	30	2,563	13.9	-2.5	23	4.8	30	2,562	13.2	1.0	25	5.4	30	2,472	-2.2	-9.9	10	2.6	30	2,468	-3.7	-10.5	20	1.5
700	30	3,129	2.8	-6.6	28	7.6	30	3,140	9.6	-5.7	25	5.4	30	3,138	9.3	-2.3	27	5.5	30	3,017	-5.7	-13.0	12	2.7	30	3,010	-7.0	-13.2	20	1.7
650	30	3,726	-.1	-12.0	27	7.8	30	3,751	5.2	-8.9	26	6.4	30	3,748	5.0	-6.4	27	5.0	30	3,594	-9.2	-17.9	14	2.6	30	3,585	-10.0	-17.7	22	1.5
600	30	4,363	-3.7	-15.4	27	7.7	30	4,399	.2	-12.6	26	7.4	30	4,396	.2	-10.4	28	4.4	30	4,209	-13.0	-22.2	14	2.4	30	4,196	-14.4	-21.9	24	2.1
550	30	5,046	-7.5	-21.5	28	7.9	30	5,089	-5.3	-16.3	25	7.7	30	5,087	-5.1	-15.4	28	4.5	30	4,867	-17.3	-28.1	14	1.8	30	4,851	-18.7	-27.9	24	2.4
500	30	5,781	-12.1	-25.4	27	7.9	30	5,829	-10.6	-23.4	25	8.2	30	5,828	-10.6	-21.8	28	5.2	30	5,574	-22.1	-32.5	11	1.1	30	5,555	-23.4	-32.2	23	2.7
450	30	6,580	-17.1	-31.0	27	8.6	30	6,632	-15.9	-29.4	26	9.9	30	6,631	-15.7	-29.3	28	7.3	30	6,341	-27.6	-37.7	11	.8	30	6,317	-29.0	-39.0	23	2.3
400	30	7,453	-23.3	-37.6	27	9.7	30	7,509	-22.0	-36.6	26	11.6	30	7,509	-22.0	-36.1	28	9.8	30	7,177	-33.9	-43.0	08	1.0	30	7,147	-35.1	-43.7	26	2.0
350	30	8,419	-30.3	-42.8	27	10.1	30	8,481	-29.1	-43.0	26	13.1	30	8,488	-29.0	-42.4	27	12.8	30	8,103	-40.7	-45.5	35	1.3	30	8,070	-41.8	-46.2	30	3.3
300	30	9,494	-38.6	-50.1	27	10.8	30	9,561	-37.3	-48.8	26	17.1	30	9,562	-36.8	-48.9	27	18.0	30	9,132	-48.1		33	4.0	30	9,096	-48.0		29	5.8
250	30	10,723	-47.8		27	11.9	30	10,798	-45.9		25	22.2	30	10,801	-45.6		27	21.3	30	10,321	-51.9		34	5.5	30	10,288	-50.5		29	7.9
200	30	12,162	-57.4		27	12.4	30	12,254	-54.7		26	26.2	30	12,257	-55.1		27	24.3	30	11,772	-49.8		33	3.7	30	11,751	-48.4		28	6.1
175	30	13,000	-60.6		26	11.8	30	13,100	-58.5		26	24.4	30	13,101	-59.7		27	22.5	29	12,646	-48.9		33	3.5	30	12,631	-48.2		28	5.3
150	30	13,957	-61.5		27	10.6	30	14,061	-62.3		26	21.8	30	14,056	-63.2		27	19.6	29	13,659	-48.7		33	2.1	30	13,640	-48.9		28	4.4
125	30	15,087	-61.6		28	7.6	30	15,178	-65.8		26	17.8	30	15,170	-65.9		27	16.9	29	14,856	-49.4		32	1.4	30	14,842	-49.8		27	3.1
100	30	16,470	-61.1		30	4.3	29	16,527	-67.5		26	10.0	30	16,517	-67.5		27	10.4	29	16,318	-49.7		34	.7	30	16,299	-50.7		27	1.0
80	30	17,859	-59.9		34	2.2	29	17,873	-66.2		22	2.8	29	17,861	-66.9		30	1.5	29	17,780	-49.2		07	.8	30	17,752	-51.1		24	.2
70	30	18,697	-58.0		02	2.7	29	18,690	-62.6		10	2.0	28	18,677	-63.1		07	2.6	29	18,557	-49.0		08	1.7	30	18,520	-51.1		13	1.0
60	30	19,672	-56.5		05	3.8	29	19,646	-60.0		10	4.0	28	19,630	-61.0		08	4.6	29	19,670	-48.6		28	2.4	30	19,624	-50.9		09	1.3
50	30	20,835	-54.2		08	4.5	28	20,787	-57.4		08	5.9	28	20,772	-57.9		09	4.9	29	20,872	-47.8		08	3.9	30	20,812	-50.4		09	3.3
40	30	22,275	-51.8		07	5.6	27	22,206	-54.5		09	8.3	27	22,189	-54.7		09	7.0	28	22,349	-47.1		09	6.0	30	22,271	-49.5		09	4.4
30	30	24,151	-49.3		09	7.5	26	24,068	-50.5		09	8.0	25	24,046	-51.2		09	7.6	28	24,260	-45.7		09	7.5	30	24,163	-48.0		09	7.3
25	30	25,351	-47.8		09	8.4	23	25,265	-48.9		09	7.5	25	25,236	-49.6		09	8.0	27	25,477	-44.7		09	8.6	27	25,367	-46.0		09	6.6
20	27	26,838	-45.4		08	9.8	22	26,738	-46.9		08	8.8	23	26,711	-46.9		08	8.7	27	26,780	-41.7		09	10.8	24	26,861	-44.1		09	9.2
15	26	28,772	-41.9		09	11.0	20	28,666	-43.0		08	9.4	21	28,630	-43.7		08	10.0	25	28,948	-38.1		09	11.6	19	28,820	-40.4		09	10.4
10	8	31,544	-36.7				13	31,428	-37.9		09	12.1	9	31,362	-39.7				16	31,755	-32.8		09	13.4	14	31,633	-34.8		09	13.8
7																			5	34,272	-29.0									

Standard pressure surface mb	ATHENS, GA 989 MB						* BARROW, AK 1015 MB						BARTER ISLAND, AK 1014 MB						BETHEL, AK 1010 MB						* BISMARCK, ND 952 MB					
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	30	246	18.5	16.6	34	.2	29	8	-.8	-1.6	08	1.8	30	15	-.4	-1.0	09	2.6	28	39	6.6	4.7	25	1.3	30	503	13.4	10.5	09	.6
1000							29	127	-.7	-1.4	09	1.9	30	124	.1	-1.1	09	2.9	27	123	7.3	4.7	25	1.2						
950	30	590	19.7	13.6	23	1.1	29	539	1.8	-8.4	15	1.5	30	539	3.5	-5.1	11	2.3	28	541	6.3	2.0	18	.8	18	557	14.1	10.1	11	1.1
900	30	1,054	17.5	10.8	23	1.9	29	976	2.2	-8.9	19	2.3	30	978	4.2	-6.7	18	.6	28	983	4.6	-1.1	18	2.2	30	984	15.8	7.3	23	3.1
850	30	1,541	14.4	8.6	23	1.9	29	1,437	.6	-9.4	20	2.8	30	1,442	2.4	-8.5	25	2.5	28	1,447	2.1	-3.9	18	2.6	30	1,466	14.0	3.4	25	4.2
800	30	2,051	11.3	4.5	22	2.5	29	1,922	-1.6	-13.0	21	3.0	30	1,930	-.1	-10.5	26	3.8	28	1,934	-.3	-6.0	17	2.1	30	1,975	10.8	1.6	26	4.1
750	30	2,588	8.1	1.2	22	3.3	29	2,433	-4.3	-15.9	21	3.4	30	2,444	-3.1	-14.9	26	4.3	28	2,449	-2.8	-9.8	17	1.6	30	2,510	7.8	-1.5	26	4.0
700	30	3,155	4.7	-3.8	23	3.9	29	2,974	-7.2	-19.5	22	4.3	30	2,986	-6.6	-19.2	26	4.7	28	2,992	-6.2	-12.8	18	1.3	30	3,075	3.5	-5.7	24	4.4
650	30	3,755	1.3	-9.1	23	3.7	29	3,548	-10.5	-21.5	23	4.1	30	3,562	-9.8	-22.7	27	4.9	28	3,569	-9.4	-17.2	18	1.7	30	3,673	.0	-11.7	26	6.0
600	30	4,396	-2.3	-15.5	22	3.4	29	4,160	-14.0	-26.4	24	4.6	30	4,175	-13.6	-25.4	27	5.4	28	4,184	-12.9	-21.5	19	2.0	30	4,309	-4.6	-16.6	26	7.3
550	30	5,082	-5.8	-20.5	23	3.6	29	4,815	-18.2	-31.5	25	4.9	30	4,831	-18.0	-29.3	27	5.6	28	4,842	-17.1	-27.5	20	1.6	30	4,989	-9.0	-20.5	26	8.6
500	30	5,823	-10.3	-23.8	23	4.3	29	5,520	-23.1	-33.9	25	5.3	30	5,537	-22.8	-33.7	27	5.9	28	5,550	-21.9	-31.4	22	1.3	30	5,720	-13.9	-25.5	25	9.7
450	30	6,626	-15.6	-28.9	24	5.2	29	6,284	-28.3	-39.1	26	5.9	30	6,301	-28.3	-38.5	27	6.5	28	6,317	-27.3	-37.1	21	1.2	30	6,512	-19.4	-30.2	26	10.4
400	30	7,505	-21.5	-32.8	25	6.6	29	7,118	-34.6	-43.5	26	7.3	30	7,134	-34.9	-44.3	27	7.3	28	7,155	-33.5	-42.9	22	1.0	30	7,377	-25.6	-36.8	25	9.4
350	30	8,477	-28.8	-40.0	25	7.5	29	8,040	-41.5	-48.5	26	8.1	30	8,055	-41.9		28	8.5	28	8,082	-40.0	-45.4	28	1.5	29	8,333	-33.0	-41.8	25	9.7
300	30	9,559	-37.4	-46.9	26	8.5	29	9,067	-48.7		26	9.0	30	9,080	-49.0		28	9.7	28	9,116	-46.7		32	2.6	29	9,390	-41.4	-46.2	26	9.6
250	30	10,792	-47.2		26	10.1	29	10,256	-50.6		27	7.8	30	10,264	-52.3		29	8.5	28	10,313	-50.5		30	3.7	28	10,606	-49.1		25	10.3
200	29	12,241	-56.5		27	10.7	29	11,726	-46.0		27	6.2	30	11,725	-47.0		29	4.1	28	11,769	-49.8		30	3.0	28	12,050	-54.2		25	13.0
175	29	13,079	-61.1		28	10.2	29	12,616	-45.7		28	5.1	30	12,611	-46.3		30	5.0	28	12,645	-48.9		28	2.3	28	12,903	-55.0		25	12.3
150	29	14,027	-65.0		29	8.3	29	13,643	-45.8		28	3.9	30	13,636	-46.3		30	4.3	28	13,658	-48.8		28	2.1	28	13,883	-56.2		26	10.1
125	29	15,135	-66.3		29	8.8	28	14,857	-46.2		29	3.0	30	14,846	-46.8		31	3.3	28	14,853	-49.9		29	1.3	28	15,041	-56.6		26	7.9
100	29	16,484	-66.7		32	2.9	27	16,341	-46.3		31	2.0	30	16,326	-46.5		32	3.3	28	16,310	-50.3		18	.3	26	16,453	-57.5		25	4.5
80	29	17,838	-64.8		04	2.1	27	17,828	-45.0		34	.9	29	17,812	-45.5		35	1.2	28	17,769	-49.8		10	.8	26	17,861	-57.4		25	2.3
70	29	18,659	-62.1		05	2.9	27	18,722	-44.5		05	1.4	29	18,705	-44.8		03	1.2	28	18,644	-49.4		10	1.4	25	18,708	-58.4		08	.3
60	29	19,615	-60.4		07	5.0	27	19,756	-43.9		07	2.0	29	19,737	-44.3		06	2.2	27	19,649	-49.2		10	2.5	25	19,688	-55.4		07	1.8
50	29	20,759	-57.8		08	6.6	27	20,982	-43.2		07	2.7	28	20,960	-43.7		07	2.8	27	20,848	-48.3		10	3.4	25	20,856	-54.2		09	3.7
40	27	22,181	-54.6		09	8.6	26	22,489	-42.7		07	3.7	28	22,461	-43.2		08	3.9	27	22,319	-47.9		09	4.9	24	22,293	-52.1		09	5.5
30	24	24,041	-50.9		09	9.0	24	24,442	-41.9		06	5.3	28	24,403	-42.4		08	5.5	27	24,223	-46.5		09	6.8	23	24,165	-49.3		09	7.1
25	21	25,237	-49.0		09	8.6	18	25,685	-41.1		08	5.9	26	25,638	-41.9		08	6.5	27	25,438	-44.9		09	7.9	23	25,364	-47.8		09	8.0
20	20	26,711	-46.7		06	9.5	13	27,204	-39.6		08	5.9	24	27,158	-38.9		08	7.4	24	26,941	-41.8		09	9.2	21	26,843	-45.7		09	9.3
15	18	28,637	-43.5		09	11.1							23	29,134	-37.4		08	7.5	19	28,885	-38.8		09	9.7	21	28,768	-43.1		09	10.5
10	7	31,384	-38.2										15	31,986	-31.8		08	7.9	6	31,720	-33.1				14	31,558	-37.4		09	14.3
7													6	34,516	-28.5										11	34,054	-32.9		09	17.2

Standard pressure surface mb	BOISE, ID 914 MB						BOOTHVILLE, LA 1015 MB						* BROWNSVILLE, TX 1012 MB						BUFFALO, NY 991 MB						CAPE HATTERAS, NC 1018 MB					
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	30	871	10.0	3.0	28	.4	30	1	23.8	21.8	17	1.1	30	7	23.6	21.4	15	1.3	30	218	16.7	13.0	20	2.0	30	4	21.7	20.3	21	1.0
1000							30	134	24.4	21.5	17	1.4	30	110	25.1	22.8	15	3.0							30	161	21.7	18.4	21	1.8
950							30	583	21.4	17.1	18	2.1	30	560	22.1	20.0	16	7.4	30	579	18.0	10.1	24	4.1	30	600	19.6	14.8	22	2.8
900	30	1,000	12.4	2.7	32	1.9	30	1,051	18.5	13.1	18	3.2	30	1,030	19.9	14.8	16	7.3	30	1,041	15.9	7.3	26	4.8	30	1,070	16.9	11.8	23	2.6
850	30	1,480	12.2	-.4	32	4.9	30	1,539	15.5	8.6	17	3.2	30	1,521	17.2	9.7	15	8.6	30	1,525	13.1	4.3	27	5.8	30	1,556	14.1	8.4	23	2.5
800	30	1,985	9.0	-3.4	32	5.6	30	2,052	12.6	4.8	18	3.0	30	2,038	14.7	5.3	14	9.6	30	2,032	10.0	1.5	27	6.2	30	2,066	11.3	5.1	23	2.2
750	30	2,516	5.5	-5.9	31	5.2	30	2,591	9.6	.2	20	2.4	30	2,581	11.7	.9	14	9.3	30	2,567	7.0	-3.0	27	6.4	30	2,603	8.4	-.2	22	2.7
700	30	3,077	2.2	-10.5	27	5.9	30	3,161	6.5	-4.1	23	1.6	30	3,155	9.2	-5.2	10	1.4	30	3,131	3.7	-7.2	27	6.8	30	3,170	5.1	-4.2	23	3.2
650	30	3,671	-1.6	-13.3	25	6.6	30	3,766	3.5	-9.4	29	1.5	30	3,766	5.7	-9.8	03	1.1	30	3,729	.1	-11.8	27	6.8	30	3,772	1.7	-8.0	23	4.3
600	30	4,304	-5.6	-18.0	24	9.1	30	4,411	-.1	-13.6	30	2.3	30	4,416	1.8	-14.1	03	1.8	30	4,366	-3.6	-16.4	27	6.3	30	4,413	-2.0	-10.9	23	5.4
550	30	4,981	-10.1	-21.9	24	11.7	30	5,103	-4.1	-18.7	31	3.6	30	5,112	-2.2	-19.7	02	2.1	30	5,049	-7.7	-20.5	27	7.3	30	5,101	-5.9	-15.4	23	5.7
500	30	5,709	-15.3	-26.1	26	13.0	30	5,848	-8.6	-24.4	31	4.6	30	5,862	-7.0	-24.8	02	2.7	30	5,784	-12.1	-25.9	27	8.4	30	5,841	-10.3	-19.9	24	7.3
450	30	6,496	-20.9	-31.2	24	14.3	30	6,657	-13.9	-29.7	31	4.7	30	6,677	-12.0	-30.7	36	3.2	30	6,582	-17.3	-30.3	27	8.4	30	6,648	-15.1	-24.8	23	7.9
400	30	7,355	-27.3	-37.0	25	16.0	29	7,539	-20.3	-34.9	31	6.2	30	7,567	-18.3	-35.4	34	4.0	30	7,454	-23.5	-35.4	27	8.9	29	7,525	-21.1	-30.4	24	7.8
350	30	8,306	-34.5	-43.9	25	17.3	29	8,518	-27.3	-41.0	30	6.9	30	8,552	-25.7	-41.2	33	4.0	30	8,420	-30.6	-42.9	27	9.6	29	8,499	-28.1	-37.9	24	8.7
300	30	9,362	-42.8	-51.0	25	19.2	29	9,600	-35.6	-47.8	30	8.4	30	9,648	-33.9	-48.6	32	4.3	30	9,493	-39.4	-48.6	27	11.5	29	9,584	-36.6	-46.4	24	9.7
250	30	10,571	-50.6		25	21.3	29	10,849	-45.3		31	10.0	30	10,901	-43.3		32	9.9	30	10,716	-48.6		27	13.4	29	10,820	-40.9		25	10.8
200	30	12,008	-54.6		25	21.1	29	12,304	-55.6		32	10.7	30	12,367	-54.2		31	12.3	30	12,154	-57.0		27	13.7	29	12,263	-57.9		26	12.0
175	30	12,863	-54.7		25	19.5	29	13,145	-60.4		32	12.6	30	13,212	-60.0		31	11.8	30	12,993	-60.0		27	11.9	29	13,095	-63.0		28	10.9
150	30	13,850	-54.9		25	16.3	29	14,097	-64.4		32	12.7	30	14,160	-66.2		31	10.1	30	13,954	-60.9		27	11.2	29	14,034	-66.6		29	8.6
125	30	15,012	-56.3		25	11.6	29	15,200	-68.3		33	10.9	30	15,249	-71.9		32	6.8	30	15,089	-61.0		27	8.4	29	15,138	-66.9		29	5.2
100	30	16,424	-57.8		24	7.3	29	16,532	-70.0		34	5.9	30	16,551	-74.5		01	5.8	30	16,477	-60.9		29	4.2	29	16,489	-65.9		33	2.5
80	30	17,830	-57.6		22	2.2	28	17,863	-67.2		02	4.4	30	17,859	-70.8		05	7.5	29	17,870	-59.4		33	1.3	29	17,849	-64.0		05	1.9
70	30	18,675	-57.0		18	1.3	28	18,725	-64.4		06	5.6	30	18,659	-66.6		07	9.3	29	18,709	-58.0		03	1.7	29	18,671	-61.8		05	3.0
60	30	19,653	-56.0		13	1.8	28	19,623	-61.9		07	7.5	30	19,600	-63.4		08	10.1	29	19,585	-56.5		07	3.3	28	19,633	-59.3		07	5.1
50	30	20,817	-54.4		10	3.5	28	20,760	-58.7		09	9.6	30	20,730	-59.6		09	12.5	28	20,845	-54.1		07	4.8	26	20,781	-56.7		08	6.5
40	30	22,254	-52.5		09	5.3	27	22,176	-54.8		09	10.6	30	22,160	-55.5		09	13.3	28	22,285	-51.8		08	6.0	26	22,208	-53.5		09	7.4
30	28	24,125	-50.9		08	7.2	26	24,030	-51.3		09	11.0	30	23,997	-50.3		09	13.6	26	24,159	-48.8		08	7.5	23	24,075	-50.4		09	8.3
25	25	25,315	-48.5		08	8.0	25	25,222	-49.0		09	11.1	29	25,193	-47.9		09	13.5	23	25,357	-47.8		09	8.3	21	25,268	-49.0		09	8.5
20	25	26,791	-46.2		09	10.2	24	26,696	-45.8		09	10.8	29	26,674	-45.2		09	12.3	21	26,828	-46.2		08	9.7	18	26,747	-46.0		09	8.3
15	20	28,706	-43.0		09	11.3	24	28,624	-43.0		08	9.7	27	28,603	-42.9		08	13.0	14	28,774	-42.0		08	11.6	14	28,674	-43.5		08	10.2
10	15	31,460	-37.5				6	31,388	-39.1				8	31,352	-37.8										7	31,401	-40.0			
7																														

RAWINSONDE DATA

Average monthly values

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
CARIBOU, ME — 992 MB						
SFC	30	191	14.1	11.1	24	1.6
1000						
950						
900	30	554	14.6	7.7	29	3.4
850	30	1,114	12.7	4.9	31	4.7
800	30	1,689	10.1	1.5	30	5.1
750	30	2,279	7.2	-1.9	30	6.1
700	30	2,879	4.5	-5.7	29	7.7
650	30	3,498	1.5	-9.8	29	8.1
600	30	4,142	-1.7	-12.1	28	7.3
550	30	4,815	-5.2	-16.3	28	7.1
500	30	5,524	-9.1	-20.8	28	6.5
450	30	6,284	-13.5	-26.4	28	5.7
400	30	7,108	-19.1	-33.7	28	4.7
350	30	8,016	-25.2	-37.3	27	4.8
300	30	9,033	-32.4	-41.7	28	5.2
250	30	10,199	-40.5	-46.8	28	6.3
200	30	11,583	-48.5		28	8.4
150	30	13,283	-58.6		28	10.3
100	30	15,509	-68.0		28	12.1
70	29	17,031	-68.5		29	11.5
50	29	18,436	-58.1		30	7.8
40	29	19,844	-57.4		31	4.5
30	29	21,682	-55.7		33	2.7
20	28	24,297	-50.3		08	4.1
15	24	26,183	-48.4		09	7.0
10	23	28,386	-46.8		09	6.9
7	20	30,860	-44.6		09	8.1
5	14	32,808	-41.3		09	11.0
3	6	35,542	-37.5			
2						
1						

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
KENTWOOD, LA — 1012 MB						
SFC	30	140	18.6	16.9	28	.5
1000	19	157	18.4	16.5	07	.8
950	30	588	20.5	14.1	11	4.3
900	30	1,053	17.4	11.8	20	5.8
850	30	1,549	16.0	8.6	21	8.8
800	30	2,049	10.9	5.3	23	9.7
750	30	2,559	8.0	-.6	24	9.8
700	30	3,151	4.7	-5.5	24	9.1
650	30	3,809	1.7	-11.2	25	9.1
600	30	4,394	-1.7	-15.8	26	9.4
550	30	5,081	-5.7	-20.2	26	9.5
500	30	5,815	-10.3	-25.7	27	9.5
450	30	6,608	-15.3	-31.1	27	9.1
400	30	7,505	-21.8	-37.0	28	8.1
350	30	8,477	-28.7	-42.6	28	8.1
300	30	9,580	-36.7	-48.7	28	10.8
250	30	10,799	-45.9		29	12.4
200	30	12,252	-55.5		29	12.5
150	30	13,995	-60.0		29	13.8
100	30	16,048	-63.8		31	12.7
70	30	15,158	-66.7		31	9.8
50	30	20,206	-67.4		33	4.2
40	30	17,857	-65.1		03	3.5
30	30	18,674	-63.1		05	4.4
20	30	19,630	-60.4		08	5.9
15	30	20,772	-57.4		09	7.8
10	29	22,192	-54.0		09	8.9
7	29	23,853	-50.7		08	8.9
5	28	25,250	-48.7		08	9.5
3	26	26,726	-46.2		08	10.2
2	20	28,044	-43.0		09	11.5
1	16	31,408	-38.7		08	13.7
	6	33,956	-33.8			

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
CHARLESTON, SC						
SFC	30	13	20.8	18.9	35	.4
1000	30	152	21.8	18.2	23	.6
950	30	598	20.3	15.5	23	3.2
900	30	1,064	18.1	11.7	21	5.6
850	30	1,551	15.0	8.4	21	7.1
800	30	2,063	12.0	5.2	23	7.0
750	30	2,601	8.9	2.1	22	7.4
700	30	3,170	5.7	-3.3	22	8.1
650	30	3,773	2.3	-5.3	22	8.3
600	30	4,416	-1.5	-9.5	22	8.4
550	30	5,105	-5.0	-16.7	23	8.9
500	30	5,848	-9.3	-21.2	23	8.4
450	30	6,655	-14.5	-27.3	24	8.3
400	30	7,537	-20.7	-32.5	24	8.9
350	30	8,513	-27.7	-38.7	24	7.1
300	30	9,601	-35.8	-46.6	24	7.4
250	30	10,842	-45.5		25	7.4
200	30	12,292	-56.8		26	9.5
150	30	13,128	-62.1		27	10.0
100	30	14,071	-65.9		29	7.0
70	30	15,173	-67.4		30	3.6
50	30	16,520	-67.0		34	2.6
40	30	17,875	-64.7		06	3.4
30	30	18,696	-62.3		06	3.5
20	30	19,684	-59.7		08	5.3
15	30	20,803	-56.8		08	7.5
10	30	22,237	-53.7		09	8.7
7	30	24,088	-50.4		09	8.3
5	28	25,628	-48.5		09	8.4
3	28	26,760	-46.3		07	9.1
2	24	28,081	-43.4		08	10.5
1	19	31,444	-38.4		09	12.7

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
[illegible], TX — 1016 MB						
SFC	29	[illegible]	16.2	14.7	15	2.8
1000	29	151	16.3	12.5	25	4.5
950	29	[illegible]	[illegible]	9.7	[illegible]	[illegible]
900	29	1,051	14.9	7.3	[illegible]	[illegible]
850	29	[illegible]	[illegible]	4.7	25	9.0
800	29	2,040	9.7	1.4	[illegible]	[illegible]
750	28	2,573	6.6	-3.0	26	7.5
700	28	3,136	3.5	-8.2	26	8.3
650	28	3,734	.2	-12.1	26	9.2
600	28	4,372	-3.4	-14.4	26	10.4
550	28	5,055	-7.3	-20.2	27	[illegible]
500	28	5,792	-11.7	-24.5	26	[illegible]
450	28	6,592	-16.6	-30.8	26	11.4
400	28	7,467	-22.6	-37.[illegible]	25	[illegible]
350	28	8,437	-29.4	-43.2	25	14.2
300	28	[illegible]	[illegible]	[illegible]	25	[illegible]
250	27	10,751	-47.8		26	17.4
200	27	12,188	-58.5		27	17.[illegible]
150	26	13,016	-62.0		28	[illegible]
100	26	13,964	-63.9		27	[illegible]
70	25	15,082	-62.7		28	8.3
50	25	16,460	-62.1		28	4.7
40	25	17,845	-60.3		33	2.[illegible]
30	25	18,681	-58.6		36	2.0
20	25	19,655	-56.7		06	2.1
15	25	20,817	-54.4		07	3.4
10	23	22,251	-52.7		08	5.4
7	23	24,123	-49.6		09	7.7
5	22	25,316	-48.0		09	8.[illegible]
3	18	26,807	-45.4		09	9.9
2	14	28,767	-41.5		09	10.5

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
[illegible], [illegible] — 851 MB						
SFC	30	1,428	[illegible]	[illegible]	[illegible]	[illegible]
1000						
950						
900	30	1,499	20.1	3.[illegible]	[illegible]	1.1
850	30	2,022	18.8	7.0	18	2.2
800	30	2,573	15.1	[illegible]	[illegible]	3.3
750	30	3,154	[illegible]	[illegible]	[illegible]	3.4
700	30	3,768	8.3	-[illegible]	[illegible]	2.2
650	30	4,419	[illegible]	-4.8	10	1.2
600	30	5,114	-3.3	-9.[illegible]	[illegible]	.7
550	30	5,862	-[illegible]	-17.8	25	[illegible]
500	30	6,673	-13.[illegible]	-25.0	26	4.9
450	30	7,561	-18.6	-32.2	25	7.7
400	30	8,543	-[illegible]	-[illegible]	[illegible]	9.5
350	30	[illegible]	[illegible]	-46.7	24	[illegible]
300	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	30	12,354	-[illegible]		26	17.1
200	30	13,198	-[illegible]		26	16.8
150	30	14,148	-[illegible]		27	14.3
100	30	15,240	-[illegible]		27	9.5
70	29	16,548	-[illegible]		28	4.1
50	29	17,883	-[illegible]		33	3.0
40	29	18,647	-[illegible]		09	5.6
30	29	19,585	-[illegible]		09	7.4
20	29	20,718	-[illegible]		09	10.3
15	28	22,129	-[illegible]		09	11.5
10	27	23,978	-[illegible]		09	10.8
7	27	25,166	-[illegible]		09	10.6
5	25	26,637	-[illegible]		09	10.9
3	22	28,552	-[illegible]		09	11.7
2	10	31,324	-39.7		08	11.0

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
MOUNT PARK, AK — 1012 MB						
SFC	27	30	5.1	3.3	20	2.0
1000	24	135	4.7	3.2	20	2.2
950	27	548	3.7	1.2	19	1.2
900	27	996	3.0	-2.0	36	.0
850	27	1,444	2.1	-6.3	30	.4
800	27	1,937	.1	-8.8	29	.4
750	27	2,452	-2.1	-11.7	30	.6
700	27	2,998	-4.9	-16.2	26	.5
650	27	3,577	-8.2	-18.6	26	1.4
600	27	4,195	-11.9	-22.8	29	2.4
550	27	4,856	-15.2	-28.4	26	3.4
500	27	5,571	-19.7	-31.8	27	4.4
450	27	6,345	-25.0	-36.9	27	4.9
400	27	7,190	-31.2	-41.5	27	5.4
350	27	8,126	-38.2	-44.6	27	6.3
300	27	9,167	-45.8		28	8.4
250	27	10,362	-52.1		30	7.4
200	24	11,789	-50.9		31	5.7
150	24	12,661	-49.8		30	4.7
100	24	13,669	-50.2		29	3.4
70	24	14,857	-51.3		30	2.5
50	24	16,236	-52.1		25	1.0
40	23	17,751	-51.4		14	.8
30	23	19,625	-50.8		09	1.0
20	23	20,813	-50.8		09	3.0
15	23	22,265	-49.7		09	4.6
10	19	24,147	-48.3		09	6.7
7	19	25,351	-47.0		09	7.7
5	17	26,836	-45.2		09	8.9
3	17	28,782	-42.1		09	10.2
2	13	31,544	-37.6		09	13.4
1						

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
DAYTON, OH — 982 MB						
SFC	28	299	17.3	14.9	22	.2
1000						
950	28	582	18.6	12.2	22	2.8
900	28	1,045	15.8	9.2	24	4.1
850	28	1,528	12.7	6.8	25	4.3
800	28	2,036	9.6	2.3	24	4.7
750	28	2,569	7.1	-2.7	24	4.5
700	28	3,134	3.9	-7.9	24	4.4
650	28	3,733	.8	-12.3	23	4.8
600	28	4,372	-2.9	-16.9	23	4.9
550	28	5,056	-7.1	-21.0	23	5.8
500	28	5,795	-12.2	-24.9	23	7.0
450	28	6,592	-17.4	-30.7	24	6.7
400	28	7,462	-23.5	-34.6	24	7.6
350	28	8,428	-30.4	-41.1	24	9.2
300	28	9,503	-38.6	-46.6	23	12.1
250	27	10,732	-47.3		24	13.4
200	27	12,176	-56.3		27	16.0
150	27	13,018	-59.2		27	14.8
100	27	13,981	-60.6		27	12.7
70	27	15,111	-62.7		27	9.1
50	27	16,484	-63.0		28	4.7
40	28	17,861	-61.3		36	.5
30	28	18,693	-59.7		06	2.2
20	27	19,661	-57.7		08	3.3
15	26	20,817	-55.5		08	4.4
10	26	22,247	-53.2		08	6.4
7	26	24,105	-50.3		09	6.6
5	25	25,698	-48.8		08	8.0
3	21	27,787	-45.7		08	9.9
2	16	28,735	-42.4		09	11.8

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
DEL RIO, TX — 976 MB						
SFC	30	314	22.1	19.3	11	3.9
1000	30	553	22.0	18.5	14	7.5
950	30	1,023	20.0	15.9	16	9.3
900	30	1,515	17.6	12.4	17	7.2
850	30	2,033	15.4	7.9	17	4.0
800	30	2,579	13.0	.9	14	1.5
750	30	3,155	9.5	-4.9	04	1.5
700	30	3,766	5.6	-9.6	03	2.8
650	30	4,415	1.1	-12.0	02	3.2
600	30	5,109	-3.4	-16.5	33	3.2
550	30	5,855	-8.0	-22.9	31	2.6
500	30	6,667	-13.0	-28.6	29	4.0
450	30	7,555	-19.1	-32.0	28	4.1
400	30	8,538	-26.0	-38.4	29	7.0
350	30	9,632	-34.5	-45.4	29	9.0
300	30	10,880	-44.4		29	12.7
250	30	12,339	-54.9		29	16.5
200	30	13,183	-60.1		29	15.2
150	30	14,132	-65.8		28	13.5
100	30	15,226	-70.9		29	10.6
70	30	16,537	-73.2		31	4.8
50	30	17,848	-71.3		05	2.5
40	30	18,643	-68.2		07	4.1
30	30	19,580	-63.7		08	8.2
20	30	20,711	-59.6		09	9.3
15	30	22,119	-55.8		09	10.5
10	30	23,974	-51.3		09	11.6
7	28	25,168	-49.7		09	10.2
5	28	26,633	-47.0		08	9.7
3	28	28,530	-43.8		08	11.0
2		31,321	-38.0			

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
DENVER, CO — 837 MB						
SFC	30	1,611	12.5	2.4	20	2.2
1000						
950						
900						
850						
800	30	1,996	14.7	.0	22	3.6
750	30	2,540	12.7	-4.1	25	3.6
700	30	3,115	8.5	-7.2	26	3.9
650	30	3,723	3.9	-10.6	27	3.7
600	30	4,368	-1.0	-14.4	27	3.6
550	30	5,055	-6.5	-18.3	27	3.4
500	30	5,791	-12.5	-23.0	27	3.3
450	30	6,587	-18.1	-32.0	27	3.8
400	30	7,457	-24.4	-37.5	26	4.1
350	30	8,417	-32.2	-44.4	26	4.1
300	30	9,483	-40.6	-50.0	26	3.3
250	30	10,704	-48.2		26	1.9
200	30	12,151	-54.8		26	2.2
150	30	13,799	-57.7		26	2.1
100	30	13,967	-59.9		26	1.9
70	30	15,100	-61.8		26	1.3
50	30	16,479	-62.9		25	1.0
40	30	17,855	-61.6		25	2.1
30	30	18,685	-59.8		10	1.6
20	30	19,652	-58.6		09	3.5
15	30	20,758	-56.1		09	4.5
10	30	22,232	-53.7		08	6.6
7	29	24,099	-50.6		09	8.1
5	28	25,299	-48.5		08	8.4
3	27	26,766	-46.3		08	9.9
2	20	28,677	-42.9		08	10.7
1	8	31,424	-37.9			

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
DODGE CITY, KS — 923 MB						
SFC	30	791	10.0	1.[illegible]	18	3.1
1000						
950						
900	30	1,009	18.4	9.6	20	[illegible]
850	30	1,499	17.8	[illegible]	[illegible]	[illegible]
800	30	2,010	13.8	1.0	[illegible]	7.9
750	30	2,561	12.3	-2.6	[illegible]	[illegible]
700	30	3,134	7.9	-5.6	[illegible]	[illegible]
650	30	3,741	[illegible]	-9.[illegible]	[illegible]	[illegible]
600	30	4,385	-[illegible]	-14.7	[illegible]	[illegible]
550	30	5,073	-[illegible]	-2.[illegible]	[illegible]	7.[illegible]
500	30	5,812	-[illegible]	-27.0	[illegible]	7.[illegible]
450	30	6,611	-17.0	-33.0	[illegible]	8.2
400	30	7,486	-23.2	-39.5	[illegible]	[illegible]
350	30	8,450	-30.5	-43.8	[illegible]	[illegible]
300	30	9,524	-38.7	-51.0	[illegible]	[illegible]
250	30	10,755	-46.8		[illegible]	[illegible]
200	30	12,200	-55.6		[illegible]	[illegible]
150	30	13,050	-57.4		[illegible]	[illegible]
100	30	14,009	-[illegible]		[illegible]	[illegible]
70	30	15,132	-[illegible]		[illegible]	[illegible]
50	30	16,494	-[illegible]		[illegible]	[illegible]
40	30	17,855	-[illegible]		[illegible]	1.2
30	30	18,677	-61.3		06	2.8
20	30	19,637	-59.7		08	4.3
15	29	20,783	-58.9		09	5.8
10	28	22,205	-56.3		09	6.3
7	28	24,084	-51.2		09	8.0
5	27	25,237	-49.0		09	8.6
3	27	26,731	-46.0		08	8.7
2	23	28,650	-43.4		08	10.5
1	13	31,400	-37.0			

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
EL PASO, TX — 881 MB						
SFC	30	1,193	20.4	4.5	14	.1
1000						
950						
900						
850	30	1,697	21.5	3.8	16	1.3
800	30	2,020	19.0	.9	20	2.1
750	30	2,571	15.1	-2.2	22	3.4
700	30	3,150	10.6	-6.0	22	2.8
650	29	3,761	5.8	-8.9	23	2.0
600	29	4,410	.4	-12.4	24	1.9
550	29	5,[illegible]	-5.1	-16.2	24	2.9
500	29	5,843	-9.7	-23.5	24	4.7
450	29	6,649	-14.8	-28.8	24	6.1
400	29	7,529	-21.0	-36.9	24	9.0
350	29	8,505	-27.8	-42.2	25	12.7
300	29	9,592	-35.6	-47.9	25	17.0
250	24	10,833	-44.8		25	20.6
200	24	12,292	-55.1		26	23.1
150	24	13,185	-59.8		24	23.4
100	24	14,087	-64.8		24	21.7
70	24	15,189	-68.6		24	16.3
50	24	16,515	-71.2		24	10.9
40	24	17,837	-69.3		21	1.8
30	24	18,643	-66.9		34	3.1
20	24	19,590	-61.8		08	6.2
15	24	20,728	-58.6		09	7.0
10	24	22,142	-55.0		09	9.7
7	23	23,995	-51.6		09	8.9
5	21	25,179	-50.1		09	9.3
3	19	26,646	-46.9		09	10.6
2	15	28,571	-42.6		09	9.4
1						

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
ELY, NV — 809 MB						
SFC	30	1,908	6.6	-5.4	20	2.8
1000						
950						
900						
850						
800	30	1,995	10.7	-3.8	20	2.4
750	30	2,535	10.9	-5.8	22	2.7
700	30	3,106	6.7	-8.7	24	4.7
650	30	3,709	2.3	-11.7	24	6.9
600	30	4,351	-2.5	-15.5	24	7.9
550	30	5,035	-7.1	-20.4	24	8.5
500	30	5,771	-12.1	-26.3	24	10.1
450	30	6,578	-17.4	-31.9	25	11.8
400	30	7,448	-24.2	-37.4	25	13.4
350	30	8,410	-31.8	-43.2	25	14.5
300	30	9,478	-40.5	-49.6	26	15.5
250	30	10,695	-50.1		25	17.5
200	30	12,126	-57.3		25	19.6
150	30	12,968	-58.3		25	20.5
100	30	13,934	-60.2		25	19.3
70	30	15,068	-60.9		25	14.4
50	30	16,451	-62.5		24	7.8
40	30	17,830	-61.3		21	3.7
30	30	18,661	-60.1		11	1.7
20	30	19,627	-58.7		09	2.1
15	30	20,778	-56.1		09	4.7
10	30	22,204	-54.2		09	6.5
7	29	24,063	-50.7		09	6.9
5	28	25,256	-49.0		08	8.4
3	26	26,730	-46.5		08	9.4
2	20	28,655	-43.1		09	11.4
1	18	31,417	-37.[illegible]		09	11.5

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
EMPALME, MEXICO — 1008 MB						
SFC	29	12	24.4	16.6	35	.8
1000	29	78	26.3	17.0	36	.5
950	29	532	26.1	12.0	13	.9
900	29	1,007	24.7	7.7	19	1.1
850	29	1,506	22.1	4.9	24	.5
800	29	2,030	18.8	2.8	23	.3
750	29	2,580	15.2	.2	20	.9
700	29	3,160	11.3	-4.0	20	.9
650	29	3,774	6.8	-7.2	20	1.3
600	29	4,426	2.0	-10.5	19	2.9
550	29	5,122	-2.8	-17.6	21	2.8
500	29	5,871	-7.7	-23.7	24	4.6
450	29	6,693	-12.7	-28.4	24	6.1
400	29	7,572	-18.6	-34.5	24	7.4
350	29	8,558	-25.3	-40.8	24	10.1
300	29	9,655	-33.6	-47.8	24	13.6
250	29	10,910	-43.0		24	16.2
200	29	12,379	-53.7		25	17.9
150	28	13,226	-59.3		25	19.3
100	28	14,180	-64.7		25	19.6
70	28	15,277	-70.2		24	11.3
50	28	16,594	-71.4		23	4.2
40	28	17,901	-71.0		11	2.9
30	28	18,700	-66.9		09	4.9
20	28	19,642	-62.8		09	7.7
15	27	20,775	-59.1		09	10.5
10	26	22,187	-55.3		09	10.8
7	26	24,041	-50.7		09	10.1
5	25	25,231	-48.8		08	10.9
3	23	26,703	-46.8		08	11.0
2	18	28,628	-43.3		09	10.5
1	8	31,413	-37.6			

Standard pressure surface	No. of observations	Height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (degrees)	Resultant Wind Speed (knots)
FAIRBANKS, AK — 994 MB						
SFC	29	135	12.4	4.5	31	1.2
1000	16	154	12.1	5.8		
950	29	536	12.6	1.6	30	1.3
900	29	987	9.3	-.6	24	2.1
850	29	1,458	5.6	-2.5	24	3.4
800	29	1,951	2.0	-4.9	24	3.4
750

RAWINSONDE DATA

Average monthly values

GLASGOW, MT — 931 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	696	11.7	8.6	01	1.4
1000						
950						
900	30	977	14.0	6.0	33	1.8
850	30	1,458	11.8	2.6	30	2.9
800	30	1,963	8.9	-.1	28	4.4
750	30	2,495	5.4	-3.8	28	5.6
700	30	3,055	2.0	-7.2	27	6.6
650	30	3,650	-1.6	-10.4	27	8.1
600	30	4,282	-5.7	-15.2	27	9.7
550	30	4,959	-9.9	-20.2	26	10.8
500	30	5,687	-15.1	-26.7	26	11.5
450	30	6,475	-20.8	-31.2	26	12.0
400	30	7,334	-27.2	-36.7	25	13.0
350	30	8,285	-34.4	-43.9	24	12.2
300	30	9,342	-42.3	-49.6	24	12.6
250	30	10,552	-50.5		23	12.9
200	30	11,994	-54.4		24	14.5
175	29	12,847	-54.3		24	13.7
150	29	13,836	-53.9		25	11.9
125	29	15,006	-54.6		25	8.5
100	29	16,429	-56.0		24	4.7
80	29	17,847	-56.4		23	1.6
70	29	18,696	-55.5		21	.8
60	29	19,682	-54.3		10	1.2
50	29	20,855	-52.7		09	3.9
40	28	22,305	-51.1		09	5.8
30	27	24,186	-49.3		09	7.8
25	26	25,387	-47.3		09	8.8
20	24	26,873	-44.8		09	10.1
15	23	28,808	-41.7		09	11.3
10	9	31,563	-35.4			

GRAND JUNCTION, CO — 851 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	1,472	14.1	-1.5	12	3.2
19	1,501	15.0	-.2	12	3.3
30	2,000	10.3	-1.6	15	4.1
30	2,545	13.0	-4.4	21	3.4
30	3,120	8.4	-7.4	24	4.2
30	3,728	3.5	-10.5	25	5.8
30	4,371	-1.9	-14.3	25	7.0
30	5,055	-7.5	-18.1	25	8.9
30	5,790	-12.9	-24.8	25	11.0
30	6,585	-17.9	-31.2	25	12.8
30	7,456	-24.1	-37.1	25	15.8
30	8,418	-31.6	-43.4	25	16.7
30	9,487	-40.1	-49.9	25	18.2
30	10,708	-48.4		25	19.9
30	12,157	-54.3		26	22.8
30	13,007	-57.3		26	21.9
30	13,977	-59.2		25	18.4
30	15,112	-61.9		25	15.5
30	16,489	-62.9		25	8.6
30	17,864	-61.6		23	2.9
30	18,694	-60.0		17	1.3
29	19,662	-58.5		10	2.6
29	20,814	-56.6		09	4.4
28	22,240	-53.7		09	6.3
27	24,106	-50.2		09	8.2
26	25,301	-48.7		09	8.3
23	26,777	-46.6		08	9.2
21	28,706	-42.7		09	9.4
8	31,502	-37.5			

* GREAT FALLS, MT — 887 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	1,118	10.0	4.6	24	1.9
30	1,470	10.0	1.2	26	4.4
30	1,972	7.1	-1.9	27	3.7
30	2,500	3.9	-4.1	26	3.8
30	3,058	.6	-7.2	26	4.5
30	3,649	-2.9	-10.7	25	7.3
30	4,279	-7.0	-16.6	25	10.3
30	4,952	-11.7	-20.9	25	12.0
30	5,675	-16.6	-25.5	25	13.0
30	6,459	-22.2	-32.6	24	13.5
30	7,314	-28.5	-39.9	24	14.0
30	8,259	-35.7	-45.6	24	14.2
30	9,310	-43.7		23	14.3
30	10,516	-50.3		23	14.5
30	11,957	-53.9		24	17.1
30	12,815	-53.5		23	16.5
30	13,808	-52.9		24	13.7
30	14,981	-54.1		24	10.8
29	16,403	-56.2		23	6.3
29	17,819	-56.5		22	2.3
29	19,189	-55.3		20	1.6
29	19,654	-54.5		13	1.9
29	20,826	-53.3		09	3.2
29	22,268	-51.7		09	4.8
28	24,142	-49.7		08	7.5
28	25,339	-48.1		09	8.8
26	26,821	-45.4		09	9.5
22	28,751	-42.1		09	10.9
7	31,517	-37.2			

GREEN BAY, WI — 989 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	210	15.0	11.2	22	1.6
30	556	17.2	8.7	24	5.1
30	1,017	15.3	6.3	25	5.4
30	1,499	12.4	3.7	25	4.5
30	2,005	9.3	-.1	26	2.9
30	2,536	6.2	-5.4	26	3.1
30	3,100	3.0	-11.0	26	3.6
30	3,698	-.5	-14.2	26	4.4
30	4,331	-4.4	-18.1	27	4.4
30	5,012	-8.6	-24.8	27	5.2
30	5,743	-13.6	-29.3	26	5.5
30	6,536	-19.1	-34.7	26	6.2
30	7,401	-25.7	-40.3	26	7.6
30	8,358	-32.9	-45.1	27	8.5
30	9,422	-40.6	-49.0	26	10.8
30	10,643	-48.5		26	12.5
30	12,088	-55.1		27	10.7
30	12,936	-57.4		28	8.3
30	13,908	-58.3		28	7.0
30	15,054	-59.0		27	5.1
29	16,498	-59.6		29	3.3
29	17,847	-59.0		34	1.5
29	19,186	-57.5		04	1.5
29	19,654	-56.2		06	2.3
28	20,802	-56.5		08	4.2
28	22,229	-53.5		08	5.7
25	24,099	-49.4		09	7.0
23	25,302	-47.8		09	7.4
18	26,781	-45.7		10	9.3
	28,715	-43.2		09	9.9

GREENSBURG, NC — 980 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	275	17.5	16.9	18	.4
30	598	19.2	13.2	26	1.5
30	1,062	17.3	10.5	25	1.8
30	1,549	14.0	6.6	25	1.9
30	2,059	11.0	2.7	25	2.4
30	2,596	8.3	-1.1	24	3.5
30	3,163	4.9	-5.0	24	3.8
30	3,764	1.4	-7.4	24	4.3
30	4,404	-2.3	-12.0	24	4.7
30	5,090	-6.0	-17.7	23	5.1
30	5,830	-10.6	-24.6	24	6.0
30	6,633	-15.7	-28.5	25	6.6
30	7,512	-21.7	-34.0	25	6.5
30	8,485	-28.7	-40.5	24	7.4
30	9,567	-36.9	-48.4	25	9.9
30	10,803	-46.6		25	12.4
30	12,248	-57.3		26	12.6
30	13,084	-61.0		27	11.1
30	14,034	-65.1		28	9.3
30	15,140	-65.6		29	5.6
29	16,498	-65.6		30	2.4
29	17,862	-63.3		05	1.8
29	19,687	-61.1		06	2.7
29	19,650	-58.9		08	4.6
28	20,802	-56.5		09	6.0
28	22,229	-53.5		09	7.3
25	24,099	-49.4		09	8.3
23	25,302	-47.8		09	8.8
18	26,781	-45.7		10	9.3
	28,715	-43.2		09	9.9

* GUAM, MARIANA IS. — 998 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	111	25.2	23.3	09	3.3
30	113	25.3	23.2		
30	548	23.2	20.3	10	7.2
30	1,019	20.5	16.2	10	7.7
30	1,512	17.8	11.8	10	7.3
30	2,030	15.3	9.0	10	6.6
30	2,575	12.4	4.9	10	7.0
30	3,151	9.3	-.5	10	7.3
30	3,762	5.9	-5.7	10	7.1
30	4,413	2.2	-10.5	09	6.6
30	5,111	-1.9	-13.6	09	5.7
30	5,863	-6.3	-19.7	10	5.0
29	6,681	-10.7	-25.7	10	4.6
29	7,577	-16.5	-31.8	10	4.4
29	8,570	-23.7	-37.0	10	3.7
29	9,675	-32.3	-44.6	12	2.9
29	10,934	-42.5		12	2.8
29	12,401	-55.1		11	.8
29	13,240	-62.2		01	1.6
29	14,174	-70.1		01	2.7
28	15,241	-77.1		02	4.6
28	16,512	-78.7		07	5.9
28	17,795	-73.8		08	8.3
28	18,583	-69.8		09	8.4
28	19,515	-64.9		09	8.4
28	20,638	-60.9		09	8.9
26	22,039	-56.9		09	10.0
23	23,882	-51.9		09	14.5
23	25,070	-49.7		09	18.6
21	26,540	-47.4		09	22.8
16	28,455	-44.5		09	27.0
10	31,190	-39.7			

HILO, HI — 1016 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	10	20.7	18.6	24	1.6
30	150	20.5	17.4	22	.8
30	592	17.3	15.5	09	2.4
30	1,053	14.3	12.6	09	3.0
30	1,534	11.2	9.9	07	2.4
30	2,039	9.7	1.3	07	3.0
30	2,576	11.0	-10.1	09	3.9
30	3,149	9.0	-12.5	10	2.7
30	3,759	5.9	-15.1	11	1.8
30	4,409	2.2	-18.2	13	.9
30	5,106	-2.4	-22.0	21	1.2
30	5,854	-7.9	-26.0	24	3.3
30	6,664	-14.0	-30.1	24	4.9
30	7,546	-21.0	-34.9	25	7.6
29	8,520	-28.2	-41.9	26	9.5
29	9,604	-36.4	-48.5	27	13.3
29	10,843	-46.1		27	15.8
29	12,291	-57.0		27	19.9
29	13,126	-62.5		27	21.4
29	14,066	-67.2		27	21.5
29	15,154	-71.0		26	15.1
29	16,469	-72.5		25	6.0
28	17,784	-70.7		10	2.6
28	18,583	-67.8		10	7.4
28	19,515	-64.9		09	10.5
26	20,638	-60.9		09	12.2
26	22,039	-56.9		09	15.3
23	23,882	-51.9		09	17.0
23	25,070	-49.7		09	17.5
21	26,540	-47.4		09	18.7
16	28,455	-44.5		09	20.4
7	31,190	-39.7			

HUNTINGTON, WV — 988 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	246	17.3	15.2	16	.6
30	584	19.4	12.0	22	3.2
30	1,049	17.3	9.8	24	4.8
30	1,535	14.1	6.7	24	5.0
30	2,044	10.7	3.6	24	4.9
30	2,580	7.3	-1.9	25	4.0
30	3,144	4.3	-8.0	24	4.7
30	3,745	1.4	-13.5	23	4.9
30	4,385	-2.3	-17.1	23	4.7
30	5,070	-6.4	-21.2	23	4.8
30	5,809	-11.1	-24.2	24	5.4
30	6,610	-16.5	-28.8	24	6.6
30	7,485	-22.6	-33.8	23	7.6
30	8,455	-29.6	-40.8	24	8.1
30	9,534	-37.8	-47.4	23	10.5
30	10,766	-47.0		25	11.7
30	12,213	-56.1		26	13.8
30	13,054	-59.9		27	14.1
30	14,011	-62.4		27	11.4
30	15,135	-63.1		28	7.5
30	16,506	-63.5		29	4.0
30	17,880	-62.0		02	2.1
30	18,710	-60.1		05	2.9
30	19,677	-58.2		07	4.2
30	20,832	-55.6		08	5.4
28	22,261	-53.1		09	6.8
27	24,129	-50.0		08	8.3
27	25,329	-48.1		08	9.1
23	26,816	-45.5		09	10.4
16	28,753	-42.1		09	11.4

* INTERNATIONAL FALLS, MN — 970 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	359	12.7	11.2	16	.8
30	530	15.0	10.0	21	3.1
30	989	14.2	6.8	24	4.1
30	1,470	11.6	3.5	24	3.9
30	1,974	8.6	.4	25	4.4
30	2,506	5.4	-3.0	25	5.1
30	3,066	1.6	-7.6	25	5.6
30	3,660	-1.3	-13.1	26	6.2
30	4,296	-5.1	-18.6	27	5.7
30	4,973	-9.4	-24.0	26	5.7
29	5,703	-14.1	-28.8	26	6.3
29	6,494	-19.8	-34.4	26	6.7
29	7,357	-26.5	-40.4	26	6.3
29	8,311	-33.8	-45.3	27	6.2
29	9,371	-41.6	-52.2	27	6.8
28	10,518	-48.8		28	7.7
29	12,037	-53.8		27	10.2
29	12,891	-55.6		28	10.0
28	13,872	-55.8		28	8.2
28	15,032	-56.5		27	6.9
28	16,445	-57.1		27	4.5
28	17,857	-56.7		31	1.3
28	18,706	-55.7		03	1.0
28	19,688	-54.6		06	2.3
28	20,858	-52.9		07	3.7
28	22,303	-51.0		08	6.0
28	24,185	-48.4		08	7.5
28	25,861	-48.1		09	8.5
24	26,873	-44.7		08	9.6
18	28,821	-40.8		09	11.7
16	31,614	-34.7		09	13.2

* ISLE DEL CISNE — 1011 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	10	26.3	22.4	11	5.8
30	102	26.0	23.1	11	6.7
30	553	22.5	20.3	11	9.4
30	1,023	19.6	16.3	12	9.5
30	1,514	16.6	12.5	12	9.1
30	2,030	14.5	7.6	12	8.3
30	2,573	11.7	2.8	13	7.7
30	3,148	8.5	-1.9	13	7.1
30	3,757	5.0	-3.5	14	6.1
30	4,407	1.3	-7.2	15	5.5
30	5,103	-2.5	-8.3	15	4.1
30	5,854	-6.4	-13.2	15	2.5
30	6,672	-11.1	-17.6	16	1.0
30	7,567	-17.0	-24.8	25	1.4
30	8,559	-23.0	-32.6	28	2.9
30	9,661	-32.3	-40.9	27	4.6
28	10,918	-43.0		28	7.5
28	12,382	-55.4		28	10.6
28	13,220	-62.2		29	12.1
28	14,157	-68.8		30	12.4
28	15,232	-74.7		32	10.2
27	16,523	-74.4		01	6.7
27	17,834	-69.7		06	7.0
26	18,635	-67.5		08	7.4
26	19,569	-64.8		09	8.3
26	20,694	-61.0		08	11.9
22	22,096	-56.4		09	15.5
23	23,951	-51.7		10	16.8
21	25,145	-49.3		09	17.5
20	26,620	-46.2		09	19.4
18	28,548	-42.0		08	22.3
5	31,301	-38.7			

JACKSON, MS — 1004 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	100	19.3	18.8	15	.9
30	133	20.1	18.0	16	1.0
30	579	20.5	14.8	22	2.9
30	1,045	17.6	11.9	21	3.3
30	1,531	14.6	8.7	21	3.7
30	2,042	11.4	5.3	21	3.3
30	2,579	8.4	-.1	22	3.2
30	3,147	5.8	-6.8	25	3.0
30	3,751	2.8	-10.2	28	2.8
30	4,394	-1.0	-15.1	29	3.0
30	5,083	-5.1	-19.6	30	3.6
30	5,826	-9.7	-24.5	28	4.4
29	6,632	-14.7	-30.3	28	6.8
29	7,513	-21.1	-35.0	29	7.9
28	8,486	-28.4	-41.7	29	9.7
28	9,570	-36.5	-48.5	29	11.9
28	10,809	-45.7		29	14.4
28	12,263	-55.4		30	14.7
27	13,103	-59.6		30	15.6
27	14,058	-63.6		30	15.1
27	15,168	-67.1		31	12.0
27	16,511	-68.0		32	5.4
27	17,858	-65.7		01	3.5
26	19,237	-61.2		07	4.4
26	20,770	-57.7		09	8.4
24	22,232	-54.5		09	8.7
22	24,042	-51.4		09	9.7
22	25,233	-49.0		09	10.2
21	26,705	-46.6		08	9.0
17	28,623	-43.3		08	9.4
8	31,355	-38.6			

JOHN F. KENNEDY INT. AP NY — 1017 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	5	19.1	14.9	22	1.0
30	149	18.8	13.7	24	1.7
30	590	17.9	10.8	27	4.3
30	1,051	15.4	8.6	27	4.3
30	1,534	12.7	5.1	27	5.2
30	2,041	9.9	1.9	26	6.3
30	2,575	6.9	-2.5	26	6.7
30	3,139	3.3	-8.9	26	7.3
30	3,737	-.1	-11.3	26	8.1
30	4,375	-3.2	-14.7	27	8.7
30	5,059	-6.9	-19.8	27	9.5
30	5,796	-11.4	-24.3	27	9.5
29	6,597	-16.6	-29.3	26	9.5
29	7,471	-22.7	-36.3	26	9.8
29	8,440	-29.7	-42.3	26	9.7
29	9,518	-37.9	-50.2	26	12.5
29	10,749	-47.7		26	14.6
29	12,188	-58.2		26	14.3
28	13,026	-62.3		27	13.2
28	13,973	-63.8		27	11.1
28	15,087	-64.1		28	8.6
27	16,457	-62.8		30	4.3
27	17,835	-61.5		31	1.6
26	19,268	-59.4		04	2.2
26	19,637	-57.5		07	3.7
26	20,796	-55.0		09	5.4
24	22,232	-52.7		09	6.5
22	24,106	-50.1		08	7.8
22	25,301	-48.6		09	9.4
19	26,769	-46.1		08	10.3
18	28,694	-42.5		09	12.3

JOHNSTON IS., PACIFIC AREA — 1014 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	3	25.3	21.5	09	4.2
30	122	24.1	20.2	09	6.6
30	570	20.3	17.6	09	7.3
30	1,035	17.4	14.0	09	7.0
30	1,522	14.2	11.1	09	6.3
30	2,034	13.9	-.3	08	5.5
30	2,577	12.6	-7.4	08	4.1
30	3,153	10.0	-10.5	07	3.5
30	3,765	6.0	-13.8	07	1.9
30	4,415	1.6	-18.0	07	.9
30	5,109	-3.1	-19.0	14	.5
30	5,857	-7.7	-23.8	28	1.6
30	6,670	-12.7	-28.3	27	2.6
30	7,558	-18.6	-33.8	28	3.0
30	8,544	-25.6	-39.4	27	3.6
30	9,638	-34.4	-47.0	27	10.4
30	10,887	-44.4		27	14.9
30	12,344	-55.9		27	18.7
30	13,181	-62.4		27	19.8
30	14,118	-68.7		27	18.1
29	15,193	-74.2		27	12.9
29	16,488	-75.1		27	3.4
27	17,797	-71.6		08	4.1
27	18,592	-69.0		09	7.6
27	19,524	-64.7		09	10.6
27	20,647	-61.6		09	11.9
27	22,044	-57.2		09	12.9
26	23,884	-52.8		09	14.2
24	25,070	-50.1		09	14.0
21	26,537	-47.6		09	13.3
20	28,449	-45.2		09	13.2
12	31,197	-39.3		09	27.2
5	33,658	-36.8			

KEY WEST, FL — 1015 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	3	25.2	22.3	13	2.1
30	134	25.1	22.5	13	2.8
30	584	21.8	19.8	14	3.9
30	1,053	18.9	15.9	14	3.5
30	1,543	16.0	12.0	15	2.4
30	2,057	13.3	7.8	17	2.3
30	2,598	10.2	4.7	18	2.2
30	3,169	6.7	-.5	17	1.7
30	3,773	3.5	-3.6	16	1.4
30	4,421	.0	-7.0	18	1.0
30	5,114	-3.7	-13.8	21	.8
30	5,861	-8.1	-18.6	29	.6
30	6,672	-13.3	-21.8	31	1.5
30	7,559	-19.1	-28.3	29	2.7
30	8,543	-25.9	-36.3	29	3.8
30	9,637	-34.3	-45.1	29	4.3
29	10,885	-44.8		28	5.6
29	12,339	-56.7		29	9.0
29	13,176	-62.7		29	10.0
28	14,114	-67.8		29	10.2
28	15,202	-70.7		33	8.4
28	16,520	-71.7		02	5.4
28	17,847	-68.1		07	4.8
28	18,654	-66.2		07	6.2
28	19,596	-62.9		08	9.6
27	20,727	-59.6		09	12.3
27	22,136	-55.6		09	14.5
27	23,991	-50.8		10	13.8
25	25,187	-48.4		09	13.1
23	26,666	-45.8		09	14.0
20	28,592	-42.3		09	15.0
6	31,387	-38.6			

KING SALMON, AK — 1013 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	15	5.3	3.8	20	1.7
29	126	5.9	3.7	20	2.3
30	541	5.9	1.2	18	2.2
30	983	4.6	-.1	17	1.4
30	1,447	2.9	-3.8	12	1.7
30	1,936	1.3	-6.9	10	1.4
30	2,451	-.2	-10.4	13	1.5
30	2,996	-3.3	-14.6	15	1.3
30	3,574	-8.5	-18.7	19	1.0
30	4,191	-12.2	-23.7	22	.9
30	4,851	-16.5	-27.6	26	.6
30	5,561	-21.0	-32.5	26	.5
30	6,331	-26.5	-36.2	27	1.8
30	7,171	-32.0	-42.4	28	3.0
30	8,101	-39.6	-44.2	29	3.9
30	9,136	-46.8		31	4.5
30	10,331	-51.0		32	5.5
30	11,785	-50.0		31	3.9
30	12,660	-49.1		30	4.1
30	13,672	-49.1		32	2.8
30	14,866	-50.1		30	2.2
30	16,323	-50.5		28	1.3
30	17,777	-50.0		04	.5
30	18,649	-50.1		10	1.8
29	19,655	-49.8		10	2.3
29	20,869	-49.1		09	3.6
28	22,318	-48.2		09	5.9
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RAWINSONDE DATA

Average monthly values

KOROR, CAROLINE IS.
1006 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
SFC	30	30	27.6	24.3	25	.5
1000	30	85	26.3	23.0	25	.9
950	30	537	22.9	20.6	26	1.6
900	30	1,008	20.3	17.2	25	1.6
850	30	1,500	17.7	13.3	24	1.2
800	30	2,018	15.2	10.4	21	.7
750	30	2,563	12.4	7.1	17	1.0
700	30	3,140	9.3	3.0	15	1.2
650	30	3,752	6.1	-.3	13	1.5
600	30	4,404	2.3	-3.7	13	2.4
550	30	5,103	-1.6	-7.9	10	2.7
500	30	5,857	-5.5	-13.7	09	3.6
450	30	6,676	-10.3	-20.1	09	4.2
400	30	7,574	-16.1	-26.1	10	3.8
350	30	8,570	-22.7	-33.4	10	3.9
300	30	9,678	-31.2	-41.8	10	3.6
250	30	10,943	-41.5		08	4.3
200	30	12,418	-53.8		07	6.4
175	30	13,262	-60.8		07	7.7
150	30	14,204	-68.2		06	8.2
125	30	15,278	-75.5		05	7.5
100	30	16,556	-78.5		01	3.2
80	30	17,847	-72.7		05	1.9
70	30	18,640	-68.4		07	1.9
60	30	19,571	-65.5		07	1.3
50	30	20,692	-61.4		10	.9
40	29	22,085	-57.6		09	4.0
30	27	23,915	-53.9		09	14.4
25	26	25,093	-51.0		09	21.1
20	23	26,553	-47.8		09	25.5
15	21	28,469	-43.6		09	29.9
10	8	31,208	-39.6			

KOTZEBUE, AK
1 13 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
27	5	3.1	1.6	25	1.9
27	112	5.7	1.4	26	2.0
27	535	7.3	-.5	24	2.2
27	979	5.4	-1.5	22	3.4
27	1,444	2.7	-4.5	22	3.8
26	1,933	.2	-6.0	22	3.6
26	2,448	-2.9	-9.3	22	4.4
26	2,991	-6.3	-13.1	23	5.0
26	3,567	-9.2	-17.9	23	4.8
26	4,182	-13.0	-21.7	23	4.5
26	4,841	-18.9	-27.2	26	4.0
26	5,549	-21.8	-31.7	24	3.7
26	6,317	-27.2	-36.9	26	3.7
26	7,154	-33.6	-42.4	27	3.8
26	8,081	-40.4	-45.4	27	4.4
26	9,115	-47.3		29	6.6
26	10,308	-51.7		29	8.5
26	11,759	-49.0		29	6.3
25	12,639	-47.8		29	4.6
25	13,659	-47.3		29	2.7
25	14,802	-48.2		30	2.4
25	16,332	-48.5		31	.8
24	17,806	-47.4		06	.7
24	18,691	-46.8		08	1.5
24	19,714	-46.3		08	2.2
24	20,928	-45.5		08	3.9
23	22,421	-44.9		08	5.3
23	24,350	-43.6		08	6.8
22	25,582	-42.7		08	7.7
22	27,093	-41.5		09	8.5
20	29,062	-38.1		08	8.9
13	31,904	-32.8			

KWAJALEIN, MARSHALL IS.
1009 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
6	4	27.1	23.9		
6	87	26.5	23.8		
6	539	23.3	22.0		
6	1,011	20.7	17.9		
6	1,505	18.0	14.3		
6	2,023	15.4	11.0		
6	2,569	12.9	8.0		
6	3,147	9.4	4.3		
6	3,758	5.9	.0		
6	4,411	2.2	-2.0		
6	5,109	-1.8	-6.3		
6	5,864	-5.6	-10.7		
6	6,683	-10.7	-15.5		
6	7,581	-15.8	-20.2		
6	8,574	-23.1	-27.2		
6	9,685	-31.3	-37.5		
6	10,949	-41.9	-49.0		
6	12,419	-54.6	-62.3		
6	13,259	-62.2			
6	14,195	-69.2			
5	15,259	-77.4			
6	16,519	-80.2			

[illegible] ISLANDS,
[illegible] MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
30	[illegible]	28.3	18.4	09	.8
30	131	27.7	19.3	14	1.2
30	577	20.5	16.1	18	3.4
30	1,044	17.7	12.6	19	3.7
30	1,531	15.2	7.0	19	3.6
30	2,043	12.6	2.9	19	2.6
30	2,583	10.0	-1.4	23	1.8
30	3,153	6.8	-5.8	27	1.6
30	3,759	3.8	-11.1	32	2.0
30	4,408	.2	-15.1	31	2.9
30	5,097	-4.1	-19.3	31	3.7
30	5,842	-8.6	-24.9	30	4.6
30	6,651	-13.8	-30.4	30	5.9
30	7,535	-20.2	-34.8	30	6.3
30	8,513	-27.4	-41.4	30	8.9
30	9,602	-35.9	-49.3	30	10.0
30	10,843	-45.2		31	12.6
30	12,298	-55.5		31	14.3
30	13,140	-60.1		31	14.1
30	14,091	-64.8		31	14.7
30	15,194	-68.9		32	12.5
30	16,519	-70.7		34	6.8
30	17,847	-68.6		36	3.9
30	18,652	-66.0		06	5.6
30	19,597	-61.8		08	7.4
30	20,736	-58.3		09	8.8
29	22,149	-55.2		09	9.6
28	24,001	-51.6		09	10.6
28	25,190	-49.4		09	10.6
26	26,666	-46.2		09	10.4
25	28,585	-44.1		08	10.0
17	31,353	-37.8		09	11.3

[illegible]
829 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
30	[illegible]	25.7	9.1	.5	1.2
30	1,044	17.7	12.6	19	3.7
30	1,531	15.2	7.0	19	3.6
30	2,043	12.6	2.9	19	2.6
30	2,583	10.0	-1.4	23	1.8
30	3,153	6.8	-5.8	27	1.6
30	3,759	3.8	-11.1	32	2.0
30	4,408	.2	-15.1	31	2.9
30	5,097	-4.1	-19.3	31	3.7
30	5,842	-8.6	-24.9	30	4.6
30	6,651	-13.8	-30.4	30	5.9
30	7,535	-20.2	-34.8	30	6.3
30	8,513	-27.4	-41.4	30	8.9
30	9,602	-35.9	-49.3	30	10.0
30	10,843	-45.2		31	12.6
30	12,298	-55.5		31	14.3
30	13,140	-60.1		31	14.1
30	14,091	-64.8		31	14.7
30	15,194	-68.9		32	12.5
30	16,519	-70.7		34	6.8
30	17,847	-68.6		36	3.9
30	18,652	-66.0		06	5.6
30	19,597	-61.8		08	7.4
30	20,736	-58.3		09	8.8
29	22,149	-55.2		09	9.6
28	24,001	-51.6		09	10.6
28	25,190	-49.4		09	10.6
26	26,666	-46.2		09	10.4
25	28,585	-44.1		08	10.0
17	31,353	-37.8		09	11.3

[illegible] KAUAI, HI
1014 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
SFC	30	30	22.9	19.5	07	3.8
1000	30	156	22.3	18.1	07	4.8
950	30	599	18.5	13.8	08	5.3
900	30	1,061	15.2	12.4	08	6.0
850	30	1,544	11.9	9.2	08	5.7
800	30	2,050	10.5	-1.3	08	5.2
750	30	2,588	10.5	-10.1	09	4.5
700	30	3,159	8.2	-13.4	09	3.1
650	30	3,767	5.1	-15.6	11	1.6
600	30	4,416	1.3	-19.1	18	.8
550	30	5,110	-3.4	-22.7	21	1.3
500	30	5,856	-8.8	-26.5	23	2.7
450	30	6,663	-14.6	-30.6	25	3.8
400	30	7,544	-21.3	-35.6	26	5.1
350	30	8,518	-28.5	-41.8	27	7.0
300	30	9,601	-37.0	-49.1	27	10.2
280	30	10,836	-46.8		27	12.6
200	30	12,282	-57.1		27	15.5
175	30	13,117	-62.4		27	16.6
150	30	14,077	-66.8		27	15.6
125	30	15,151	-69.4		27	11.0
100	29	16,479	-70.5		27	2.5
90	28	17,805	-69.0		09	3.3
80	28	18,609	-66.7		09	6.6
70	28	19,547	-64.3		09	9.3
60	28	20,672	-61.0		09	12.0
50	28	22,070	-56.9		09	14.4
40	28	23,914	-52.0		09	16.0
30	28	26,168	-47.9		09	17.8
25	28	25,101	-50.2		09	17.8
20	24	26,568	-47.9		09	18.4
15	23	28,483	-44.9		09	17.1
10	14	31,204	-40.7		09	19.6

LITTLE ROCK, AR
997 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
30	79	19.5	17.1	22	.5
5	183	19.8	18.0		
30	586	19.8	13.6	21	2.6
30	1,051	16.9	11.5	21	3.1
30	1,536	13.7	7.5	22	3.8
30	2,045	11.1	3.4	23	3.8
30	2,582	8.7	-2.6	25	3.6
30	3,150	5.9	-7.7	28	3.5
30	3,754	2.6	-10.9	29	3.7
30	4,397	-1.2	-15.1	30	3.8
30	5,085	-5.4	-20.7	30	4.7
30	5,826	-10.4	-24.2	29	6.5
30	6,629	-16.0	-29.3	29	7.5
30	7,506	-21.8	-35.6	29	9.6
30	8,479	-28.9	-41.9	30	12.0
29	9,559	-37.2	-46.9	29	13.5
29	10,795	-46.1		29	16.3
29	12,250	-55.0		29	19.3
29	13,095	-59.4		29	19.4
29	14,051	-63.2		30	18.2
28	15,165	-65.8		30	13.7
28	16,515	-67.1		32	6.6
28	17,868	-65.5		36	2.6
28	18,683	-63.1		05	3.1
28	19,638	-60.5		08	5.1
28	20,784	-56.7		09	6.0
28	22,207	-54.4		09	6.9
28	24,066	-50.8		09	8.4
28	25,761	-48.8		09	8.7
27	26,737	-46.2		08	9.0
26	28,862	-43.5		08	10.0
13	31,424	-38.5		07	12.2

LONGVIEW, TX
1002 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
30	124	19.6	18.9	18	.9
21	151	20.4	18.0	17	1.2
30	584	20.6	15.0	20	2.2
30	1,051	17.9	12.2	20	2.9
30	1,538	14.8	7.9	21	3.9
30	2,049	12.6	1.8	24	3.0
30	2,589	10.0	-2.6	26	3.0
30	3,159	6.9	-5.9	29	2.8
30	3,764	3.5	-9.6	30	2.1
30	4,409	-.4	-13.7	30	2.8
30	5,100	-4.7	-18.7	30	3.7
30	5,844	-9.2	-25.0	30	4.2
30	6,651	-14.4	-29.2	29	4.7
30	7,533	-20.5	-33.7	29	4.8
30	8,511	-27.5	-39.7	30	4.4
30	9,598	-35.9	-47.7	30	4.0
30	10,841	-45.2		30	3.3
30	12,296	-55.4		30	1.6
30	13,139	-59.9		30	1.0
30	14,092	-64.3		30	1.6
30	15,198	-67.8		31	1.7
30	16,530	-70.2		32	2.7
30	17,865	-67.5		01	3.3
30	18,674	-65.0		06	3.1
29	19,623	-61.2		08	3.3
29	20,765	-57.9		09	3.5
29	22,183	-55.0		09	3.3
28	24,037	-51.5		09	3.0
26	25,224	-49.0		09	3.3
26	26,698	-46.1		08	3.5
24	28,623	-43.2		09	3.9
13	31,376	-37.2		09	11.1

MCGRATH, AK
1001 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
29	103	9.4	5.7	25	1.4
18	146	11.3	4.8	26	1.4
29	542	10.6	2.8	27	1.9
29	991	7.9	.5	23	1.8
29	1,459	4.3	-1.2	21	2.0
29	1,950	1.0	-3.9	19	2.4
29	2,466	-2.4	-7.4	20	2.4
29	3,010	-5.9	-12.0	20	2.6
29	3,588	-8.8	-16.0	21	2.5
29	4,204	-12.6	-22.2	21	2.5
29	4,864	-16.7	-25.9	20	1.9
29	5,573	-21.7	-32.8	21	1.8
29	6,340	-27.1	-37.8	23	2.0
29	7,179	-33.2	-43.5	26	2.1
29	8,107	-40.0	-43.4	29	2.8
29	9,139	-47.6		31	3.9
29	10,330	-52.0		31	4.9
28	11,775	-49.3		32	3.3
28	12,653	-48.3		30	2.8
28	13,689	-48.4		31	2.2
28	14,869	-48.8		32	1.6
28	16,333	-49.2		34	.7
28	17,798	-48.7		08	1.2
28	18,678	-48.1		08	1.8
28	19,596	-47.6		09	2.6
28	20,903	-47.0		08	3.6
25	22,373	-46.4		09	5.7
25	24,288	-45.2		09	7.3
25	25,509	-43.9		09	9.1
25	27,015	-41.8		09	10.1
22	28,787	-38.3		09	10.5
10	31,801	-34.0			

MAJURO, MARSHALL IS.
1010 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
30	4	28.1	24.2	08	3.2
30	95	28.9	22.5	08	4.3
30	548	23.9	21.0	09	6.1
30	1,020	20.7	17.9	09	5.1
30	1,513	17.9	14.0	10	6.0
30	2,031	15.7	11.4	10	5.8
30	2,578	.0	7.5	10	6.5
30	3,156	9.9	3.9	10	6.9
30	3,770	6.7	.0	10	6.2
30	4,423	2.9	-2.9	10	6.4
30	5,124	-.9	-6.6	10	5.6
30	5,880	-5.2	-11.1	10	5.0
30	6,701	-9.0	-17.5	10	4.7
30	7,602	-15.1	-24.8	11	4.1
30	8,601	-21.8	-32.0	11	3.4
30	9,715	-30.2	-40.5	14	2.7
30	10,983	-40.6	-49.2	16	2.2
30	12,463	-53.5		25	2.2
30	13,309	-60.3		23	2.1
30	14,252	-68.3		25	2.0
30	15,328	-74.7		46	3.3
30	16,611	-77.2		28	5.6
30	17,901	-73.0		26	3.9
30	18,693	-68.0		29	2.0
30	19,631	-63.0		23	.6
30	20,760	-62.4		14	1.0
30	22,164	-58.3		10	1.7
29	24,005	-53.9		09	13.4
29	25,185	-51.0		09	20.3
29	26,649	-48.6		09	26.4
18	28,577	-43.3		09	29.9
5	31,353	-38.0			

MEDFORD, OR
970 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
SFC	30	401	9.6	5.3	28	.2
1000	30	577	11.6	4.6	30	.9
950	30	1,028	9.8	3.1	30	1.3
900	30	1,501	7.5	.3	36	.8
850	30	1,999	5.6	-5.1	30	1.3
800	30	2,525	3.5	-10.3	28	2.5
750	30	3,082	.6	-14.9	27	4.3
700	30	3,673	-2.6	-18.5	27	5.8
650	30	4,303	-6.6	-22.3	27	7.5
600	30	4,977	-10.8	-24.8	27	9.5
550	30	5,703	-15.7	-29.8	26	11.7
500	30	6,490	-20.8	-33.7	26	13.3
450	30	7,351	-27.0	-38.7	26	15.7
400	30	8,302	-34.3	-44.5	26	17.2
350	30	9,359	-42.6	-48.3	26	19.0
300	30	10,567	-50.8		26	19.8
250	30	12,006	-54.5		26	20.0
200	30	12,859	-55.4		25	19.0
175	30	13,840	-56.3		26	16.0
150	30	14,996	-57.1		25	11.9
125	30	16,406	-58.2		24	6.8
100	30	17,812	-57.9		23	3.2
80	29	18,652	-57.1		20	1.7
70	29	19,629	-56.6		12	1.8
60	29	20,797	-55.2		09	3.7
50	29	22,228	-53.3		09	5.5
40	26	24,089	-50.9		09	6.9
30	25	25,282	-48.9		09	8.1
25	23	26,755	-46.8		09	9.6
20	23	28,483	-43.3		09	11.1
15	23	28,677	-43.3		09	11.1
10	15	31,451	-38.3		09	12.9
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MERIDA, MEXICO
1011 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
30	11	22.7	22.2	09	1.2
30	108	22.9	21.6	11	3.6
30	557	22.2	19.2	12	7.8
30	1,027	20.0	14.2	12	7.1
30	1,519	17.6	9.8	12	6.6
30	2,033	14.5	6.3	12	5.6
30	2,579	11.6	4.1	13	4.7
30	3,153	8.5	-.8	12	3.9
30	3,763	5.2	-4.0	11	3.0
30	4,412	1.5	-7.9	10	1.9
30	5,109	-2.2	-12.8	10	1.7
30	5,860	-6.6	-19.5	07	1.3
30	6,676	-11.4	-25.3	36	1.3
30	7,569	-17.5	-30.8	33	2.2
29	8,560	-24.5	-37.8	31	3.1
29	9,661	-33.0	-46.3	30	3.9
29	10,917	-42.9		28	7.2
29	12,385	-54.4		28	8.4
29	13,229	-60.4		30	9.6
29	14,174	-66.9		32	9.6
29	15,260	-72.6		34	8.5
29	16,558	-75.1		03	7.6
29	17,864	-70.8		07	7.6
29	18,663	-67.3		08	8.2
29	19,599	-64.4		08	8.9
29	20,737	-59.7		09	10.6
28	22,138	-55.5		09	12.4
28	23,993	-50.8		09	13.2
26	25,191	-48.2		09	14.1
24	26,675	-45.5		09	15.7
19	28,602	-42.7		09	18.6

MIAMI, FL
1016 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
30	4	24.2	21.9	09	1.0
30	142	24.5	22.0	13	2.2
30	591	21.4	19.1	14	3.9
30	1,060	18.7	15.4	15	3.7
30	1,549	15.8	11.3	15	3.0
30	2,063	13.0	7.7	16	2.7
30	2,603	9.7	4.1	16	2.7
30	3,173	6.8	-.3	16	1.9
30	3,779	3.4	-3.4	17	1.8
30	4,425	-.1	-8.3	17	1.5
30	5,118	-3.7	-13.1	18	1.3
30	5,864	-8.2	-16.7	30	.2
30	6,675	-13.4	-22.8	34	.4
30	7,561	-19.4	-28.7	34	1.1
30	8,543	-26.2	-34.4	31	2.9
30	9,637	-34.7	-43.5	29	4.1
30	10,883	-45.0		29	4.9
30	12,334	-57.1		29	6.1
30	13,168	-62.9		30	7.3
30	14,106	-67.3		32	8.0
30	15,197	-70.1		34	7.5
30	16,522	-70.1		02	4.9
30	17,859	-67.3		06	6.1
30	18,669	-64.8		07	6.3
30	19,617	-61.9		08	9.6
30	20,756	-58.4		09	12.1
30	22,170	-54.8		10	13.7
27	24,034	-49.7		10	12.9
25	25,232	-47.7		09	11.7
24	26,713	-46.3		08	10.6
23	28,644	-41.8		08	10.5
6	31,412	-37.6			

MIDLAND, TX
915 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
30	874	19.6	13.8	15	2.7
30	1,012	20.5	14.0	16	4.8
30	1,506	19.6	10.7	18	7.9
30	2,027	17.8	6.0	20	4.6
30	2,577	14.6	.8	22	1.9
30	3,155	9.8	-3.9	27	1.2
30	3,766	5.4	-8.6	32	1.9
30	4,414	.4	-10.7	33	2.0
30	5,106	-4.1	-16.0	32	3.2
30	5,852	-8.7	-21.6	29	3.2
30	6,661	-13.9	-27.1	28	5.1
30	7,546	-19.7	-31.7	27	7.6
30	8,527	-26.8	-38.3	27	10.2
30	9,618	-35.1	-46.2	27	14.2
27	10,862	-44.9		27	17.6
27	12,320	-55.0		28	19.7
27	13,104	-59.6		28	20.2
27	14,117	-64.3		28	17.4
27	15,220	-69.1		28	12.7
27	16,548	-70.9		28	7.4
27	17,870	-69.6		34	.6
27	18,674	-66.7		08	3.4
27	19,617	-62.2		09	6.7
26	20,754	-58.0		09	9.7
26	22,168	-53.6		09	9.0
26	24,021	-51.2		09	9.5
26	25,212	-48.9		09	8.6
26	26,686	-47.0		08	8.9
23	28,608	-44.0		09	10.8
17	31,384	-37.7		09	11.0
7	33,376	-34.3			

MONTERREY, MEXICO
962 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction deg.	Resultant Wind Speed mps
30	428	21.0	19.7	11	1.2
30	561	24.4	19.2	12	2.4
30	1,030	19.4	16.2	14	4.4
30	1,506	17.7	12.5	14	5.6
30	2,039	12.6	7.4	13	4.5
30	2,585	13.2	1.1	13	2.1
30	3,162	10.4	-5.4	08	1.5
30	3,770	6.0	-10.3	36	3.9
30	4,427	2.2	-12.8	30	3.7
30	5,124	-2.4	-18.4	35	4.3
29	5,874	-7.1	-22.9	36	3.1
29	6,689	-11.7	-28.9	35	3.1
29	7,581	-17.6	-34.7	33	2.6
29	8,557	-24.8	-39.4	31	2.1
29	9,669	-33.3	-47.3	32	1.7
29	10,924	-42.8		31	9.9
29	12,394	-53.8		30	12.1
29	13,241	-59.7		31	10.6
29	14,190	-65.8		31	8.2
29	15,281	-71.6		31	4.9
28	16,585	-74.7		02	4.1
28	17,890	-71.9		06	6.5
28	18,687	-67.3		07	8.0
28	19,627	-63.1			10.6
27	20,758	-59.7			12.7
27	22,172

RAWINSONDE DATA

Average monthly values

MONETT, MO — 965 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	438	15.9	14.3	15	1.8
1000						
950	30	574	18.8	13.6	17	2.5
900	30	1,039	17.1	9.9	21	4.4
850	30	1,504	13.8	6.4	24	3.8
800	30	2,035	12.1	-.3	27	3.1
750	30	2,573	9.6	-4.1	29	3.1
700	30	3,142	6.2	-7.0	30	4.1
650	30	3,746	2.4	-9.8	30	4.4
600	30	4,388	-1.8	-15.6	30	4.7
550	30	5,074	-6.5	-20.4	30	5.6
500	30	5,813	-11.2	-25.7	30	5.6
450	30	6,614	-16.5	-29.5	29	7.2
400	30	7,489	-22.5	-34.3	29	8.5
350	29	8,457	-29.8	-41.5	28	10.9
300	28	9,533	-38.1	-47.2	28	14.3
250	27	10,764	-46.2		28	17.9
200	27	12,220	-54.5		28	20.3
175	27	13,067	-58.5		29	20.4
150	27	14,031	-61.0		29	18.2
125	27	15,157	-63.6		30	13.2
100	27	16,521	-64.9		31	7.4
80	27	17,884	-64.0		35	2.9
70	26	18,778	-62.2		03	2.5
60	26	19,666	-59.6		07	3.8
50	28	20,813	-56.8		09	5.6
40	28	22,238	-53.8		09	6.1
30	24	24,095	-51.0		09	7.4
25	23	25,286	-49.2		09	7.9
20	23	26,758	-46.7		09	8.7
15	19	28,691	-43.4		09	9.6
10	12	31,463	-38.6		08	11.3
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NASHVILLE, TN — 996 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	180	18.4	16.9	15	.6
1000	29	116	5.1	2.3	14	.9
950	30	532	5.7	.9	18	1.7
900	30	974	4.8	-1.6	21	2.4
850	30	1,438	2.7	-4.1	20	2.9
800	30	1,927	-.1	-7.4	20	3.3
750	30	2,441	-2.8	-10.8	20	3.1
700	30	2,985	-6.0	-15.2	21	3.1
650	30	3,562	-9.0	-19.2	21	3.0
600	30	4,177	-12.6	-23.6	21	3.2
550	30	4,836	-16.8	-28.3	22	2.9
500	30	5,545	-21.6	-32.0	23	2.6
450	30	6,314	-26.7	-36.9	24	1.8
400	30	7,153	-33.0	-41.4	27	2.0
350	29	8,081	-40.2	-45.3	28	2.2
300	28	9,112	-47.4		32	2.2
250	27	10,306	-51.4		30	3.8
200	27	11,751	-49.7		31	3.3
175	27	12,628	-48.7		29	2.6
150	27	13,643	-48.3		28	1.6
125	27	14,842	-49.1		30	1.0
100	27	16,306	-49.2		15	.3
80	27	17,769	-48.5		10	1.4
70	26	18,649	-48.0		10	2.2
60	26	19,667	-47.5		10	2.9
50	28	20,875	-46.7		09	4.2
40	28	22,359	-46.[illegible]		09	5.9
30	24	24,286	-44.4		09	7.3
25	23	25,506	-43.2		09	8.0
20	23	27,016	-41.1		09	9.8
15	19	28,973	-37.4		09	10.5
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* NOME, AK — 1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	5	4.1	1.7	12	.5
1000	29	116	5.1	2.3	14	.9
950	30	532	5.7	.9	18	1.7
900	30	974	4.8	-1.6	21	2.4
850	30	1,438	2.7	-4.1	20	2.9
800	30	1,927	-.1	-7.4	20	3.3
750	30	2,441	-2.8	-10.8	20	3.1
700	30	2,985	-6.0	-15.2	21	3.1
650	30	3,562	-9.0	-19.2	21	3.0
600	30	4,177	-12.6	-23.6	21	3.2
550	30	4,836	-16.8	-28.3	22	2.9
500	30	5,545	-21.6	-32.0	23	2.6
450	30	6,314	-26.7	-36.9	24	1.8
400	30	7,153	-33.0	-41.4	27	2.0
350	29	8,081	-40.2	-45.3	28	2.2
300	28	9,112	-47.4		32	2.2
250	27	10,306	-51.4		30	3.8
200	27	11,751	-49.7		31	3.3
175	27	12,628	-48.7		29	2.6
150	27	13,643	-48.3		28	1.6
125	27	14,842	-49.1		30	1.0
100	27	16,306	-49.2		15	.3
80	27	17,769	-48.5		10	1.4
70	26	18,649	-48.0		10	2.2
60	26	19,667	-47.5		10	2.9
50	28	20,875	-46.7		09	4.2
40	28	22,359	-46.[illegible]		09	5.9
30	24	24,286	-44.4		09	7.3
25	23	25,506	-43.2		09	8.0
20	23	27,016	-41.1		09	9.8
15	19	28,973	-37.4		09	10.5
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NORTH PLATTE, NE — 916 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	847	11.9	7.7	13	.2
1000						
950	30	995	16.2	9.3	19	2.3
900	30	1,482	16.4	5.5	23	5.3
850	30	1,997	14.2	2.9	25	4.2
800	30	2,539	10.9	-.6	27	3.7
750	30	3,111	7.0	-5.0	27	5.2
700	30	3,716	3.2	-10.0	27	6.3
650	30	4,360	-1.4	-14.3	27	7.2
600	30	5,046	-6.4	-18.4	27	8.0
550	30	5,784	-11.9	-24.1	26	9.0
500	30	6,582	-17.7	-30.3	26	9.3
450	30	7,452	-24.2	-36.9	26	10.7
400	30	8,414	-31.4	-41.9	26	11.9
350	30	9,484	-39.7	-49.4	26	13.6
300	30	10,708	-48.1		27	17.7
250	30	12,155	-54.8		27	19.4
200	30	13,904	-57.5		27	19.0
175	30	13,973	-59.2		27	18.4
150	30	15,114	-60.5		27	13.6
125	30	16,502	-61.2		27	6.4
100	30	17,886	-61.0		28	1.6
80	30	18,720	-59.4		07	1.0
70	30	19,690	-57.6		08	3.1
60	30	20,846	-55.5		08	4.8
50	28	22,277	-53.0		09	6.1
40	28	24,148	-49.6		09	7.2
30	25	26,220	-46.5		08	9.1
25	25	27,016	-41.1		09	9.8
20	25	28,028	-37.4		09	10.5
15	19	28,973	-37.4		09	10.5
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OAKLAND, CA — 1014 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	0	12.8	9.9	25	1.0
1000	30	120	13.9	7.8	26	1.4
950	30	553	14.7	3.7	30	2.8
900	30	1,012	16.5	-3.0	32	4.3
850	30	1,497	14.0	-5.2	31	3.9
800	30	2,007	11.7	-7.8	29	3.5
750	30	2,543	8.9	-10.9	28	3.6
700	30	3,109	4.9	-13.6	27	4.0
650	30	3,709	1.2	-18.4	26	4.5
600	30	4,348	-2.7	-20.4	26	5.5
550	30	5,032	-7.1	-24.2	26	7.2
500	30	5,768	-12.3	-28.9	26	8.2
450	30	6,564	-18.1	-33.9	26	9.7
400	30	7,432	-24.7	-38.9	25	11.0
350	30	8,393	-32.0	-45.2	25	13.1
300	28	9,459	-40.7	-50.7	25	14.1
250	27	10,676	-49.7		25	16.2
200	27	12,112	-56.5		25	17.7
175	27	12,955	-58.4		25	17.5
150	27	13,923	-59.7		25	15.7
125	27	15,058	-61.3		25	13.4
100	27	16,440	-62.0		25	7.0
80	27	17,820	-61.5		23	2.3
70	26	18,650	-60.3		26	1.4
60	26	19,614	-59.1		10	2.1
50	28	20,764	-57.2		09	4.5
40	28	22,185	-54.0		09	6.3
30	28	24,040	-51.0		09	8.0
25	28	25,228	-49.0		08	8.7
20	27	26,699	-46.9		08	9.2
15	26	28,616	-43.8		09	10.8
10	26	31,330	-38.0		09	10.3
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OMAHA, NE — 987 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	403	17.0	12.1	18	2.0
1000						
950	30	548	18.6	10.6	19	3.8
900	30	1,012	17.4	7.5	21	6.6
850	30	1,498	14.7	5.2	22	5.1
800	30	2,009	11.6	-.8	23	4.6
750	30	2,546	8.7	-3.4	24	4.8
700	30	3,113	5.5	-8.7	26	6.1
650	30	3,715	1.9	-13.0	26	4.1
600	30	4,355	-2.3	-18.3	27	7.4
550	30	5,041	-7.1	-23.2	27	7.3
500	30	5,776	-12.5	-27.1	28	7.8
450	30	6,572	-18.1	-33.2	28	8.4
400	30	7,441	-24.8	-39.3	27	9.6
350	30	8,401	-32.1	-46.2	27	10.8
300	30	9,468	-40.1	-50.6	27	12.5
250	30	10,689	-48.6		27	14.9
200	30	12,134	-54.8		27	17.4
175	29	12,980	-57.7		28	17.2
150	29	13,949	-59.2		28	14.7
125	29	15,088	-60.5		29	9.5
100	29	16,473	-61.9		28	4.4
80	29	17,851	-61.8		33	1.9
70	29	18,682	-59.9		03	1.5
60	29	19,649	-58.0		07	3.9
50	28	20,805	-55.5		08	4.8
40	28	22,238	-53.4		09	5.8
30	28	24,113	-50.5		08	7.6
25	23	25,293	-49.0		09	7.9
20	19	26,769	-46.5		08	8.9
15	14	28,710	-43.2		09	10.7
10	7	31,469	-38.4			
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PAGO PAGO, AMERICAN SAMOA — * 1012 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	5	28.2	23.6	09	4.5
1000	29	112	26.3	22.5	09	4.5
950	29	564	22.5	20.0	09	4.6
900	29	1,034	19.2	16.7	08	4.5
850	29	1,524	16.4	13.7	08	4.2
800	29	2,040	14.3	9.6	07	4.1
750	29	2,584	12.1	3.6	07	3.0
700	29	3,159	8.9	-1.8	09	2.7
650	29	3,770	5.9	-7.0	11	.9
600	29	4,422	2.4	-11.5	14	.4
550	29	5,120	-1.7	-15.9	18	.8
500	29	5,872	-6.0	-22.1	30	2.5
450	29	6,689	-11.5	-26.7	29	3.0
400	29	7,582	-17.1	-31.4	27	5.0
350	29	8,574	-23.7	-37.6	27	5.7
300	29	9,678	-32.3	-45.6	25	8.2
250	29	10,937	-42.5		24	9.3
200	29	12,405	-54.6		24	10.2
175	29	13,247	-61.4		25	10.2
150	29	14,186	-68.8		26	10.4
125	29	15,259	-75.4		26	10.2
100	29	16,537	-78.8		27	8.7
80	29	17,821	-74.8		27	6.1
70	29	18,603	-70.3		27	4.3
60	29	19,530	-65.2		27	3.0
50	28	20,657	-59.5		30	1.2
40	28	22,066	-55.4		02	1.2
30	26	23,917	-51.6		07	1.3
25	21	25,293	-49.0		08	4.0
20	19	26,571	-47.3		08	9.0
15	14	28,498	-42.3		08	9.8
10	7	31,260	-38.5		09	9.3
7		33,732	-36.8			
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* PEORIA, IL — 992 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	200	15.6	12.5	16	.5
1000						
950	30	572	18.9	10.0	23	2.7
900	30	1,035	16.2	8.7	25	3.6
850	30	1,519	12.7	4.9	25	3.0
800	30	2,026	10.0	-.7	26	2.7
750	30	2,560	7.2	-5.9	27	3.0
700	30	3,124	3.9	-9.8	28	3.7
650	30	3,724	.9	-14.2	26	4.5
600	30	4,363	-2.8	-19.2	26	4.8
550	30	5,047	-7.3	-23.3	26	5.7
500	30	5,782	-12.5	-27.2	27	5.9
450	30	6,578	-18.2	-31.7	27	6.5
400	30	7,446	-24.7	-36.8	26	7.3
350	30	8,408	-31.6	-43.8	26	8.8
300	30	9,478	-39.3	-48.1	26	10.1
250	30	10,705	-47.2		26	12.5
200	30	12,156	-55.1		27	16.4
175	29	13,007	-57.8		28	14.1
150	29	13,976	-59.4		28	12.1
125	29	15,112	-61.0		29	7.3
100	28	16,495	-62.0		28	4.3
80	28	17,876	-61.1		35	2.2
70	28	18,709	-59.8		03	1.7
60	28	19,678	-57.6		07	3.7
50	28	20,835	-55.3		08	4.9
40	28	22,268	-52.6		09	5.7
30	28	24,138	-50.0		08	7.8
25	24	25,334	-48.6		09	8.9
20	22	26,812	-45.8		08	9.2
15	15	28,747	-41.8		09	10.2
10	13	31,529	-38.3		09	10.1
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* PITTSBURGH, PA — 975 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	359	16.7	13.3	22	1.1
1000						
950	30	584	18.4	12.1	24	2.9
900	30	1,047	16.4	9.9	26	4.7
850	30	1,532	13.4	6.0	26	4.7
800	30	2,040	10.5	1.8	26	5.2
750	30	2,575	7.0	-2.1	26	5.8
700	30	3,139	3.9	-8.6	25	5.5
650	30	3,738	.9	-11.5	25	5.0
600	30	4,378	-2.9	-15.1	25	4.9
550	30	5,062	-7.4	-18.3	26	5.5
500	30	5,798	-11.7	-20.6	25	6.5
450	30	6,598	-17.0	-30.7	26	6.2
400	30	7,471	-23.4	-36.1	25	6.4
350	30	8,437	-30.4	-41.6	25	7.0
300	30	9,512	-38.7	-48.6	25	9.1
250	30	10,739	-48.1		26	11.7
200	30	12,178	-57.6		27	14.0
175	29	13,015	-60.6		27	13.2
150	29	13,970	-62.1		27	11.2
125	29	15,096	-62.8		27	7.4
100	29	16,471	-62.5		29	3.7
80	29	17,855	-61.4		36	1.5
70	29	18,681	-59.7		05	2.5
60	29	19,650	-57.7		08	4.0
50	29	20,807	-55.2		08	5.5
40	29	22,240	-52.9		09	6.3
30	29	24,113	-50.0		08	8.4
25	25	25,308	-48.7		08	9.8
20	22	26,783	-45.6		09	10.4
15	15	28,735	-42.0		09	12.3
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PONAPE, CAROLINE IS. — * 1005 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	39	28.4	24.2	06	1.7
1000	30	79	26.9	23.0	07	1.9
950	30	532	23.4	20.8	09	4.0
900	30	1,004	20.4	17.0	09	4.6
850	30	1,497	17.7	13.8	10	4.6
800	30	2,015	15.5	10.6	10	4.1
750	30	2,561	12.8	7.5	10	3.9
700	30	3,138	9.4	4.2	11	5.2
650	30	3,751	6.1	1.2	10	5.0
600	30	4,403	2.8	-2.3	10	5.5
550	30	5,103	-1.4	-5.8	10	4.9
500	30	5,858	-5.3	-11.5	10	4.7
450	30	6,678	-10.1	-16.9	10	4.1
400	30	7,577	-15.7	-23.4	11	4.4
350	30	8,575	-22.4	-31.7	10	4.0
300	30	9,685	-30.8	-41.8	10	4.6
250	30	10,952	-41.4		09	4.9
200	30	12,427	-53.8		09	3.0
175	29	13,271	-60.0		08	3.0
150	29	14,213	-68.4		05	1.5
125	29	15,288	-72.3		25	.9
100	29	16,560	-78.3		27	4.9
80	29	17,855	-72.5		29	2.9
70	29	18,649	-67.8		34	.7
60	29	19,580	-63.2		17	.3
50	28	20,716	-60.5		16	.8
40	28	22,117	-57.3		10	3.3
30	28	23,951	-53.8		09	14.1
25	25	25,129	-50.7		09	20.7
20	25	26,594	-47.4		09	26.0
15	21	28,517	-43.2		09	31.3
10	21	31,261	-38.8			
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PORTLAND, ME — 1014 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	20	16.3	12.5	26	1.1
1000	29	138	16.8	12.3	26	2.1
950	29	576	16.4	9.3	28	3.7
900	29	1,036	14.5	7.2	28	3.2
850	29	1,516	11.3	4.7	28	5.5
800	29	2,021	8.7	1.2	27	6.9
750	29	2,553	5.9	-1.9	27	8.6
700	29	3,115	2.4	-5.9	27	9.0
650	29	3,711	-.7	-9.9	27	9.2
600	29	4,346	-4.4	-14.2	28	10.1
550	29	5,027	-8.4	-18.8	27	10.5
500	29	5,761	-12.8	-26.2	27	11.2
450	29	6,557	-18.0	-31.2	27	12.8
400	29	7,427	-24.0	-37.8	27	13.7
350	29	8,391	-30.8	-41.8	27	14.9
300	29	9,464	-38.8	-49.1	27	17.4
250	29	10,692	-47.6		28	18.4
200	29	12,137	-56.5		28	17.7
175	29	12,977	-60.0		28	16.4
150	29	13,936	-60.7		27	14.7
125	29	15,072	-60.5		28	10.5
100	28	16,463	-60.6		29	5.5
80	28	17,858	-59.0		32	2.8
70	28	18,699	-57.2		01	2.0
60	28	19,679	-55.4		06	2.6
50	27	20,850	-53.1		08	3.9
40	27	22,295	-51.3		09	5.6
30	26	24,175	-48.7		09	7.8
25	24	25,382	-46.9		09	8.0
20	24	26,869	-44.4		09	11.2
15	21	28,812	-40.8		09	11.5
10	12	31,596	-34.1			
7						
5						

QUILLAYUTE, WA — 1012 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	58	8.1	6.8	21	.2
1000	29	154	8.8	7.1	27	.7
950	29	578	7.2	4.4	26	2.0
900	29	1,022	5.5	3.3	26	2.9
850	29	1,487	3.3	-3.7	26	2.7
800	29	1,977	1.2	-7.9	26	3.7
750	29	2,494	-.5	-12.4	26	4.4
700	29	3,041	-4.5	-17.0	26	5.4
650	29	3,621	-7.8	-19.4	26	6.8
600	29	4,239	-11.5	-24.0	26	8.0
550	29	4,901	-15.6	-27.1	26	9.4
500	29	5,614	-20.2	-31.9	26	10.4
450	29	6,389	-25.3	-35.8	27	12.8
400	29	7,234	-31.3	-40.4	27	14.7
350	29	8,169	-38.0	-44.5	27	16.5
300	29	9,212	-44.8		27	18.6
250	29	10,416	-50.0		26	18.1
200	29	11,866	-51.8		26	15.5
175	29	12,733	-51.2		26	13.5
150	29	13,736	-51.4		26	11.7
125	29	14,917	-52.5		25	8.3
100	28	16,353	-54.3		24	6.3
80	28	17,783	-54.4		23	3.3
70	28	18,639	-54.3		21	1.8
60	28	19,628	-53.9		14	1.5
50	27	20,801	-53.4		10	3.7
40	27	22,242	-52.2		09	5.0
30	26	24,175	-50.2		09	6.9
25	24	25,308	-48.5		09	7.7
20	24	26,789	-46.0		08	8.2
15	21	28,812	-42.7		09	10.4
10	12	31,596	-37.3		7	
7						
5						

RAPID CITY, SD — 903 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	966	11.8	8.0	32	1.9
1000						
950	30	1,018	13.1	7.4	30	1.3
900	30	1,472	14.3	4.9	29	3.6
850	30	1,983	12.5	1.6	26	3.6
800	30	2,522	9.1	-1.7	26	4.4
750	30	3,090	5.7	-6.6	26	4.5
700	30	3,692	1.7	-10.3	26	4.2
650	30	4,333	-2.8	-14.2	26	6.6
600	30	5,016	-8.0	-18.8	26	8.1
550	30	5,749	-13.6	-23.5	26	9.4
500	30	6,541	-19.3	-31.1	26	10.5
450	30	7,406	-25.8	-37.8	26	11.7
400	30	8,362	-33.3	-43.8	26	12.2
350	30	9,424	-41.4	-48.3	25	13.4
300	30	10,638	-50.1		25	14.5
250	30	12,079	-54.8		25	15.7
200	30	13,906	-57.2		26	15.9
175	30	14,856	-58.3		26	14.6
150	30	15,956	-59.8		26	12.9
125	30	16,454	-59.8		26	8.3
100	30	17,848	-59.4		25	3.2
80	30	18,687	-58.2		29	.2
70	30	19,661	-56.9		09	2.3
60	30	20,821	-55.0		08	3.7
50	29	22,253	-52.9		09	5.0
40	29	24,121	-50.0		09	6.9
30	28	26,315	-48.6	

RAWINSONDE DATA

Average monthly values

RAWINSONDE DATA

Average monthly values

WASHINGTON DULLES INT. AP — 1008 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed mps
SFC	30	95	17.7	15.9	19	.8
1000	29	151	16.9	15.2	22	.8
950	30	591	19.5	11.0	27	2.9
900	30	1,056	17.2	8.1	29	3.2
850	30	1,541	14.2	6.5	27	3.6
800	30	2,051	11.0	2.8	26	4.1
750	30	2,587	7.6	-.4	26	5.1
700	30	3,152	3.9	-5.4	25	5.7
650	30	3,751	.7	-10.2	25	5.9
600	30	4,390	-2.7	-16.1	25	5.9
550	30	5,075	-6.9	-20.4	25	5.1
500	30	5,813	-11.6	-25.3	26	5.2
450	30	6,613	-16.4	-28.9	26	4.1
400	30	7,489	-22.4	-35.1	26	4.2
350	30	8,459	-29.3	-41.1	25	7.7
300	30	9,539	-37.3	-48.7	25	9.3
250	30	10,773	-46.8		25	10.7
200	29	12,217	-57.0		26	12.5
175	29	13,053	-61.5		27	12.9
150	29	14,002	-63.9		27	9.9
125	29	15,119	-64.5		27	7.5
100	29	16,485	-63.5		29	3.7
75	29	17,858	-62.2		34	1.5
70	29	18,687	-60.4		05	2.1
65	29	19,653	-58.2		07	3.6
60	29	20,808	-55.3		08	4.9
55	29	22,242	-52.7		09	6.2
50	28	24,111	-50.1		08	7.0
45	27	25,303	-48.5		08	8.3
40	25	26,779	-46.2		08	9.4
35	19	28,720	-42.1		09	11.2

WAYCROSS, GA — 1011 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed mps
30	44	20.2	19.0	05	.1
30	141	21.0	19.5	19	.7
30	587	20.2	15.8	20	2.6
30	1,053	18.2	13.1	20	1.8
30	1,541	15.1	10.2	19	1.6
30	2,053	12.4	5.6	19	2.3
30	2,593	9.5	2.2	21	2.4
30	3,162	6.0	-1.0	20	2.8
30	3,766	2.7	-6.4	21	2.9
30	4,410	-.8	-12.5	23	2.8
30	5,100	-4.7	-17.3	23	3.0
30	5,844	-8.9	-23.7	25	3.5
30	6,653	-14.3	-28.9	26	4.2
30	7,535	-20.5	-32.9	26	5.2
30	8,513	-27.2	-40.1	26	6.3
29	9,600	-35.5	-47.8	25	6.9
29	10,843	-45.3		26	8.4
29	12,296	-56.4		26	7.7
29	13,133	-61.5		28	8.0
29	14,079	-65.5		30	7.2
29	15,182	-67.8		32	4.6
29	16,524	-67.5		36	2.6
29	17,876	-65.0		06	3.2
29	18,695	-62.9		07	4.1
28	19,649	-60.0		08	6.5
27	20,796	-57.1		08	7.9
26	22,220	-53.8		09	9.5
26	24,085	-50.1		09	9.8
26	25,280	-48.4		09	9.4
25	26,753	-45.7		08	9.8
24	28,684	-42.7		08	11.3
16	31,447	-37.4			

WINNEMUCCA, NV — 868 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed mps
30	1,312	11.3	-1.9	33	.4
30	1,486	13.3	-2.0	36	1.7
30	1,994	10.8	-4.0	33	2.4
30	2,529	7.2	-6.4	28	3.1
30	3,092	3.4	-9.5	26	4.8
30	3,690	-.2	-12.3	24	7.1
30	4,326	-4.1	-16.1	24	9.6
30	5,006	-8.7	-20.6	24	11.1
30	5,738	-13.7	-25.4	24	12.8
30	6,530	-19.2	-31.3	25	13.4
30	7,396	-25.6	-36.5	25	15.0
30	8,353	-33.0	-42.6	25	16.1
30	9,414	-41.7	-49.4	26	17.6
30	10,626	-50.6		26	19.9
30	12,059	-55.9		26	21.3
30	12,907	-56.8		25	20.3
30	13,882	-57.5		25	17.7
30	15,029	-59.5		25	13.0
30	16,421	-60.3		25	8.7
30	17,816	-59.8		21	1.9
30	18,653	-58.9		18	1.2
30	19,623	-57.6		11	2.1
30	20,780	-55.5		09	4.5
30	22,209	-53.7		09	6.0
30	24,072	-50.4		09	7.4
28	25,269	-48.6		08	8.4
26	26,748	-46.0		08	9.5
19	28,677	-42.9		09	10.0
10	31,464	-36.2			

WINSLOW, AZ — 851 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed mps
30	1,487	12.8	-4.4	18	1.6
24	1,508	14.7	-3.3	18	1.4
30	2,016	18.1	-1.7	24	3.8
30	2,564	14.3	-4.9	23	4.2
30	3,142	9.9	-8.3	22	5.4
30	3,753	5.3	-11.1	22	6.9
30	4,400	.2	-14.6	22	7.9
30	5,091	-4.9	-19.5	23	9.0
30	5,833	-10.2	-25.4	24	9.6
30	6,636	-15.7	-30.6	24	10.8
30	7,513	-22.4	-36.0	25	12.1
30	8,482	-29.9	-42.5	25	14.4
30	9,559	-38.2	-50.1	25	17.2
30	10,790	-46.8		25	21.3
30	12,242	-55.3		25	24.1
30	13,087	-59.0		25	24.6
29	14,042	-62.4		25	21.1
29	15,160	-65.4		25	19.0
28	16,507	-67.3		25	10.1
27	17,854	-65.6		21	3.3
27	18,671	-63.3		15	1.9
26	19,623	-60.7		11	3.6
23	20,767	-57.8		09	6.1
23	22,185	-54.3		09	7.1
23	24,043	-51.4		09	8.2
22	25,235	-49.4		09	9.3
20	26,709	-46.2		09	10.2
19	28,636	-42.8		08	8.9
11	31,381	-37.6			

YAKUTAT, AK — 1015 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed mps
30	142	7.9	6.9	09	.3
30	134	8.6	6.6	13	.4
30	537	9.0	3.2	16	.9
30	998	3.7	.2	14	.9
30	1,462	2.2	-4.3	11	1.0
30	1,950	.4	-8.2	10	1.9
30	2,460	-2.3	-10.3	09	3.2
30	3,010	-6.0	-14.1	09	3.6
30	3,587	-9.4	-18.9	09	3.9
30	4,201	-13.2	-22.4	09	4.0
30	4,858	-17.5	-28.0	08	3.8
30	5,565	-22.9	-33.9	08	3.1
30	6,329	-28.3	-38.0	08	2.9
30	7,163	-34.9	-44.5	07	3.1
30	8,084	-41.7	-47.9	07	1.7
30	9,111	-48.7		36	1.7
28	10,293	-51.5		34	3.1
28	11,751	-48.4		33	2.8
28	12,630	-48.1		32	2.5
28	13,647	-48.1		31	1.4
28	14,847	-48.0		29	1.5
28	16,312	-49.4		29	.7
27	17,777	-49.6		07	.5
27	18,652	-49.5		08	1.0
27	19,663	-49.0		09	2.0
27	20,862	-48.2		09	3.1
26	22,337	-47.5		09	4.7
25	24,249	-46.1		09	7.0
25	25,466	-44.5		09	7.5
21	26,964	-42.6		09	9.6
16	28,923	-39.0		09	10.7
13	31,738	-33.4			

YAP, CAROLINE IS. — 1008 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed mps
SFC	30	14	27.8	24.0	11	1.7
1000	30	84	26.6	23.9	11	1.9
950	30	537	23.2	21.9	10	2.4
900	30	1,008	20.4	17.9	10	2.9
850	30	1,501	17.4	14.7	10	2.5
800	30	2,019	15.1	11.1	10	2.4
750	30	2,564	12.7	6.9	10	2.8
700	30	3,141	9.7	2.6	10	3.2
650	30	3,754	6.4	-1.3	10	3.8
600	30	4,407	2.5	-4.5	10	4.3
550	30	5,106	-1.3	-9.1	10	3.7
500	30	5,860	-5.4	-14.9	09	3.2
450	30	6,681	-10.0	-21.1	09	3.4
400	30	7,579	-15.9	-27.0	08	3.3
350	30	8,575	-22.6	-34.2	07	2.9
300	30	9,685	-31.0	-42.1	09	2.1
250	30	10,951	-41.2		09	2.3
200	30	12,426	-53.7		07	4.3
175	30	13,271	-60.8		05	5.2
150	30	14,212	-68.5		03	6.5
125	30	15,286	-75.4		03	6.8
100	29	16,562	-78.1		05	6.0
80	29	17,854	-72.3		07	4.9
70	29	18,646	-68.2		08	5.7
60	29	19,581	-64.7		09	4.5
50	28	20,703	-61.5		09	4.3
40	27	22,101	-57.1		09	4.0
30	25	23,940	-53.0		09	14.3
25	24	25,123	-50.5		09	20.9
20	23	26,589	-47.6		09	25.1
15	18	28,508	-43.6		09	29.6
10	9	31,266	-38.9			

YUCCA FLAT, NV — 878 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed mps
30	1,198	13.1	-7.5	30	.6
30	1,475	19.6	-.4	28	1.6
30	1,994	15.9	-3.1	23	2.7
30	2,558	12.3	-5.7	22	3.2
30	3,111	8.0	-8.8	22	4.1
30	3,718	3.5	-12.1	21	4.4
30	4,361	-1.2	-16.7	22	5.1
30	5,049	-5.8	-21.2	24	7.0
30	5,788	-11.1	-25.4	24	8.2
30	6,589	-17.0	-30.9	25	9.4
30	7,461	-23.8	-36.0	26	10.8
30	8,425	-31.2	-42.5	26	12.1
30	9,495	-39.7	-49.5	26	13.3
30	10,719	-48.3		26	16.4
30	12,160	-56.3		26	19.6
30	13,006	-58.0		25	19.0
30	13,971	-60.4		25	18.6
30	15,100	-62.3		25	14.2
29	16,472	-64.4		25	8.8
29	17,840	-62.7		23	3.0
28	18,665	-61.3		17	.9
27	19,623	-59.4		11	2.5
27	20,771	-57.3		10	3.9
27	22,189	-55.1		09	5.6
27	24,041	-51.9		09	6.9
26	25,230	-50.1		09	7.9
21	26,695	-47.6		09	8.5
18	28,618	-44.3		09	9.3
12	31,362	-39.5		10	9.6

SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun.

Sun's zenith distance

Date	A.M. 78.7°	A.M. 75.7°	A.M. 70.7°	A.M. 60.0°	*	P.M. 60.0°	P.M. 70.7°	P.M. 75.7°	P.M. 78.7°
	Air mass 5.19	3.81	2.81	1.83	*	1.83	2.81	3.81	5.19
1	.83	.91	1.05	1.19	1.39	1.22	1.04	.88	.72
2	---	---	---	---	1.40	1.06	.93	.78	.61
3	.63	.74	.89	1.07	1.15	---	---	---	---
4	---	---	.92	1.10	---	---	---	---	.66
5	---	---	---	---	1.33	---	---	---	---
6	---	---	---	.99	1.31	---	.89	---	---
7	.65	.77	.93	1.09	1.39	1.12	.94	.78	---
12	.84	.94	1.05	1.19	1.36	1.22	1.17	1.05	.97
13	.48	1.07	1.18	1.31	1.44	1.05	.75	.57	.53
14	.96	1.03	1.15	1.28	1.48	1.29	1.16	1.03	.94
15	.90	.98	---	1.26	1.44	1.27	1.10	.98	.89
16	---	---	---	1.05	1.39	1.22	1.03	.90	.80
17	1.02	1.08	1.20	1.34	1.49	1.30	1.18	1.03	.98
18	1.00	1.07	1.18	1.27	1.46	---	1.02	.89	.81
19	.83	.92	1.04	1.20	1.31	---	---	---	---
20	.66	.76	.92	1.13	1.41	---	---	---	.61
29	.77	.87	.99	1.15	1.36	1.14	.97	.82	.75
30	.75	.84	.96	1.13	1.36	---	---	---	---
31	---	---	.86	---	---	---	---	---	---
1	---	---	(1.12)	(1.28)	(1.41)	1.18	1.08	.91	.83
14	.94	1.02	1.15	1.28	1.44	(.91)	(.73)	(.62)	(.56)
15	1.01	1.08	1.20	1.34	1.45	1.31	1.14	.98	.91
26	.88	.96	1.07	1.22	1.42	1.19	1.02	.87	.79
27	.82	.90	1.04	1.19	---	---	1.05	.93	.84
28	.77	.85	1.00	1.18	1.35	1.07	---	---	---
29	---	---	---	1.17	---	---	---	---	---
30	---	---	1.03	1.18	1.39	---	---	---	---
Averages	.85	.93	1.04	1.19	1.38	1.18	1.03	.89	.81

MADISON, WI

	Air mass 4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
6	M .66	M .77	M .90	M1.03	S1.31	S1.11	S .93	S .81	S .73
8	S .74	S .85	S .97	S1.12	S1.33	S1.16	S .99	S .85	S .74
9	S .69	S .79	S .92	S1.10	M1.24	M .96	S .79	S .63	S .54
9	M .53	M .63	M .76	M .92	M1.11	M .84	M .67	M .58	M .49
1	---	---	---	---	---	---	---	M .53	M .43
2	I .38	I .47	I .60	I .83	---	I .72	I .43	I .38	I .23
3	---	---	---	---	S1.18	---	---	---	---
9	---	---	---	---	S1.32	---	S .81	S .63	---
0	S .74	S .83	S .95	S1.09	S1.31	S1.10	S .93	S .79	---
1	M .67	M .76	M .88	M1.04	M1.22	---	---	---	---
5	S .80	S .90	S1.01	S1.14	S1.29	S1.13	S .89	S .75	S .63
7	---	---	---	---	S1.34	S1.10	S .98	S .85	S .75
Averages	.65	.75	.87	1.03	1.27	1.11	.82	.68	.57

MAUNA LOA OBSERVATORY, HA

	Air mass 3.36	2.63	2.01	1.34	*	1.34	2.01	2.63	3.36
1	---	---	---	---	1.55	---	---	---	---
2	1.14	1.21	1.31	1.42	1.54	1.49	1.27	1.19	1.11
3	---	---	---	1.42	---	---	---	---	---
4	---	---	1.30	1.42	1.55	---	---	---	---
5	---	---	---	---	---	1.39	1.27	1.18	1.09
6	1.13	1.21	1.30	1.42	1.54	1.36	1.24	1.14	1.06
7	---	1.21	1.30	1.42	---	---	---	---	---
8	1.14	1.22	1.31	1.42	---	---	---	---	---
9	1.18	1.26	1.34	1.46	1.57	---	---	1.20	1.14
5	---	---	---	---	---	---	1.25	---	1.08
9	1.08	1.15	1.25	1.36	1.50	---	---	---	---
1	1.10	1.18	1.28	1.39	1.51	1.37	1.26	1.18	---
2	1.11	1.19	1.28	1.39	1.50	---	---	---	---
3	1.09	1.17	1.27	1.37	---	---	---	---	---
4	1.08	1.16	1.25	1.37	1.50	1.34	1.24	1.16	1.08
5	1.10	1.18	1.28	1.39	1.51	---	---	---	---
0	1.10	1.18	1.28	1.38	---	---	---	---	---
Averages	1.11	1.19	1.29	1.40	1.53	1.37	1.25	1.18	1.09

Sun's zenith distance

Date	A.M. 78.7°	A.M. 75.7°	A.M. 70.7°	A.M. 60.0°	*	P.M. 60.0°	P.M. 70.7°	P.M. 75.7°	P.M. 78.7°
	Air mass 4.80	3.81	2.84	1.88	*	1.88	2.84	3.81	4.80
1	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---
Averages	---	---	---	---	---	---	---	---	---

[illegible], WI

	Air mass 4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
1	---	---	---	HM .68	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---
3	.74	.80	.93	.96	---	.94	.78	HS(.64)	HS(.46)
4	.84	.87	1.00	HS1.08	1.42	HM .74	HM .70	HS .51	---
5	---	---	.48	.62	---	---	HM .43	HM .31	---
7	---	---	HM .40	.61	---	---	---	---	---
8	HS .42	HS .55	HS(.68)	---	---	---	---	---	---
10	---	---	---	---	---	---	1.01	.79	---
11	---	---	---	---	1.48	.88	.71	---	---
12	---	---	---	---	---	1.10	---	---	---
13	.62	.74	.89	1.05	---	---	---	---	---
15	.85	.98	1.02	---	---	---	---	---	---
16	.79	.88	1.00	1.15	---	---	---	---	---
18	---	---	.91	1.12	---	---	---	---	---
19	---	---	---	---	---	1.07	.89	---	.65
20	.71	.83	.98	1.11	---	1.21	1.11	1.04	.98
21	.66	.76	.86	1.00	---	---	---	---	---
22	---	---	HM .74	HM .94	---	---	.99	(.33)	---
25	---	.81	.93	1.11	1.27	---	.79	.64	.47
27	---	---	---	---	1.28	---	---	---	---
30	.73	.86	.99	1.16	1.35	1.11	(.96)	(.81)	---
Averages	.70	.80	.93	.98	1.28	1.03	.79	.63	.47

[illegible], AZ

	Air mass 4.64	3.71	2.78	1.86	*	1.86	2.78	3.71	4.64
1	.79	.89	1.02	1.20	1.39	1.12	1.07	.94	.77
2	.80	.90	1.02	1.18	1.38	1.17	1.02	.91	.75
3	---	---	---	1.18	1.42	1.26	1.13	1.04	.90
4	.83	.94	1.05	1.24	1.43	1.24	1.10	.98	.79
5	.84	.94	1.07	---	---	---	---	---	---
6	.74	.87	.99	1.16	1.31	1.21	1.05	.82	.76
7	---	---	---	1.15	1.33	1.20	1.05	.93	.85
8	.83	.94	1.06	1.22	1.39	1.22	1.05	.93	.83
9	.88	.97	1.09	1.25	1.43	1.27	1.11	.99	.90
10	.95	1.04	1.19	1.29	1.44	1.24	1.11	1.01	.94
11	.84	.94	1.07	1.23	1.47	1.14	.97	.85	.75
12	.80	.92	1.09	1.21	1.46	1.23	1.07	.94	.83
13	.88	.98	1.15	1.27	1.44	1.29	1.13	1.01	.91
14	.94	1.04	1.16	1.29	1.45	1.28	1.09	.95	.87
15	.84	.94	1.07	1.21	1.39	1.17	1.02	.90	.79
16	.72	.84	.96	1.16	1.39	1.23	1.09	.97	.84
17	.76	.85	.98	1.12	1.34	1.15	.97	.85	.67
18	.79	.88	1.00	1.18	1.37	1.12	.98	.87	.74
19	.80	.91	1.04	1.20	1.38	1.15	.98	.85	.79
20	.72	.84	.92	1.09	1.31	1.08	---	---	---
21	.68	.77	.92	1.06	---	1.07	---	.80	.67
23	.80	.91	1.04	1.11	1.41	1.16	.96	.84	.75
24	.74	.88	1.00	1.16	1.38	1.17	1.00	.87	.78
25	.81	.92	1.04	1.21	1.40	1.19	1.02	.89	.78
26	.74	.84	.96	1.15	1.38	1.14	.95	.81	.70
27	.81	.83	.96	1.14	1.34	1.18	1.03	.90	.80
28	.64	.86	.98	1.12	1.38	1.23	.98	.91	---
29	---	---	---	---	1.31	---	.92	---	---
3	---	---	---	---	1.31	---	.88	---	---
Averages	.78	.88	1.01	1.18	1.38	1.16	1.03	.89	.78

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

JUNE 1971

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
ALBUQUERQUE NM	734	671	635	723	665	512	611	657	726	737	750	764	762	750	771	761	745	741	739	698	695	590	732	766	763	752	774	752	577	595		699
BISMARCK ND	636	689	494	587	442	496	663	656	628	711	---	571	745	153	690	371	424	75	741	745	665	583	182	387	569	468	737	753	701	746		585
CARIBOU ME	504	595	690	725	657	684	346	420	718	512	206	404	421	517	674	487	409	648	580	477	490	740	650	---	265	141	211	577	414	494		505
EL CENTRO CA	690	696	746	768	754	761	801	717	719	752	741	711	734	705	707	772	760	733	731	706	687	768	772	773	775	680	739	740	659	722		731
EL PASO TX	753	715	693	719	697	708	673	713	709	728	742	769	582	742	734	740	743	759	720	705	679	631	742	771*	717	748	698	740	687	567*		710
ELY NV	---	544	628	765	748	756	689	704	573	585	324	553	678	804	713	458	738	805	754	762	773	464	794	784	768	775	768	633	733	764		688
FRESNO CA	722	717	730	741	670	657	671	663	595	347	718	731	701	718	703	739	724	713	698	721	735	709	728	710	684	744	756	727	756	746		699
GENEVA NY	95	174	750	764	759	326	528	718	562	614	562	801	545	558	630	355	523	654	467	156	350	375	514	278	418	736	718	508	409	262		522
GRAND JUNCTION CO	708	715	710	713	774	432	650	580	701	737	688	711	436	814	784	630	---	---	---	---	---	---	---	797	772	768	773	769	637	460		686
JOHNSTON IS. PAC.	484	450	620	591	657	671	563	620	566	589	619	602	655	622	643	613	546	551	701	566	627	611	662	657	482	578	---	670	598	391		598
LAS VEGAS NV	706	651	736	745	691	696	723	670	719	709	658	716	681	750	747	711	714	710	716	741	703	732	746	747	742	732	730	696	698	774		716
MADISON WI	357	728	734	720*	697	694	687	694	681	569	655	625	651	609	500	439	655	652	765	735	723	439	581	150*	742	669	679	697	154	663		590
MIAMI FL	668	563	345	---	---	---	489	310	116	133	227	295	636	---	605	594	683	432	305	642	662	346	164	242	395	578	663	470	---	521		439
NASHVILLE TN	423	199	126	371	481	700	668	624	615	545	548	574	580	496	580	220	545	471	297	502	492	638	542	387	340	357	537	624	507	554		476
OAK RIDGE TN	436	223	364	491	641	712	664	492	604	548	454	576	544	452	499	364	557	353	115	234	459	468	473	305	456	415	489	491	537	334		
PAGE AZ	778	788	800	797	800	798	761	760	777	758	707	801	727	749	794	759	815	825	811	799	681	771	821	836	830	831	829	824	623	267		767
PHOENIX AZ	719	743	748	705	693	729	737	719	727	726	733	740	735	714	725	740	736	715	720	665	691	706	720	737	740	735	715	678	701	690		716
STERLING VA	529	111	592	697	677	579	636	613	673	596	556	625	274	356	522	333	477	527	503	293	458	503	65*	585	542	594	695	675	491	440		518
SEATTLE TACOMA WA	713	660	634	753	752	520	445	404	493	630	227	617	435	740	136	280	765	660	606	742	442	497	574	425	671	759	734	620	319	527		555
TALLAHASSEE FL	---	---	--	--	---	---	--	---	---	---	---	---	- -	---	---	---	---	---	---	---	---	---	---	690*	608	600	601	516	552	275		---

NET RADIATION

Net radiation in langleys per day (8 a.m. to 8 a.m. L.s.t. Palmer, Alaska

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys	247	226	239	267	201	74	96	129	208	148	144	252	226	269	262	222	82	136	[illegible]	[illegible]	[illegible]	184	184	[illegible]	28	28	[illegible]	[illegible]	222	245		204

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals and monthly average (in 1000 A.U. of Ares, Inc.

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys																																

[illegible]

TOTAL OZONE DATA

Purpose provisional. The data are obtained from measurements made with a Dobson spectrophotometer and are supplemental data primarily for local synoptic use. The data are presented in the code as described in the August 1967 WMO circular entitled PUBLICATION OF DATA FROM METEOROLOGICAL RESEARCH, WORLD OZONE DATA

Units: Milli atm. cm.

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean O_3
[illegible]																																

[illegible]

STORM SUMMARY LATE REPORTS

FLOOD STAGE DATA LATE REPORTS

Stage	Date
11.08	Jan 10

SOLAR RADIATION INTENSITIES LATE REPORTS

Tabulated in langleys per minute on a surface normal to the direction of the sun.

Sun's zenith distance

Date	A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass 4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Oct. 1975									
1	HS .67	HS .75	.90	1.07	.99	1.02	.81	.68	.54
2	HS .50	HS .71	.85	1.01	1.15	----	----	----	----
3	----	----	----	----	----	----	.95	.80	.71
4	----	----	----	----	----	1.26	1.10	.91	.76
5	.65	.77	.90	1.08	1.20	----	----	----	----
6	.57	.64	.80	1.00	1.18	HM .92	HM .73	HS .58	HM .47
7	----	----	----	----	HI .97	----	----	.60	.52
8	----	----	----	----	----	----	----	----	----
9	----	----	----	----	----	----	----	----	----
10	----	----	----	----	----	----	----	----	----
11	----	----	----	----	----	----	----	----	----
12	.84	.95	1.07	1.26	1.34	1.21	1.08	.86	.76
13	----	----	----	----	----	----	----	----	----
14	----	----	----	----	----	----	----	----	----
15	----	----	----	----	----	----	1.05	.91	(.78)
16	----	----	----	----	----	----	----	(.99)	(.80)
17	.85	.96	1.06	1.17	1.28	1.19	1.08	.93	.85
18	HS .76	HS .81	HS .93	HS 1.10	----	1.22	1.04	.91	HS .81
19	.64	.68	.82	1.14	1.29	1.11	.90	.79	.70
20	.90	.94	1.06	1.18	1.31	1.14	.94	.78	.65
21	HI .96	----	HI .99	HI .80	----	----	----	----	----
22	----	.86	----	----	----	----	----	----	----
Averages	.67	.82	.91	1.10	1.25	1.11	.95	.78	.65

Sun's zenith distance

Date	A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass 4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Oct. 1975									
1	----	----	.98	1.10	1.28	1.37	1.25	1.30	.92	.86
2	.93	1.01	1.11	1.26	1.34	1.20	HM .98	HM .84	HM .68
3	HS .82	HS .90	HS1.03	1.21	1.36	1.20	.98	.84	.69
4	.84	.96	1.08	1.22	1.32	1.20	1.02	----	----
5	----	.91	1.08	1.22	1.27	1.11	.94	.79	.61
6	----	.88	.91	1.11	1.26	.11	.93	.70	HS .62
7	----	----	----	----	----	----	----	----	----
8	.56	HM .64	HS .82	HS .95	----	----	----	----	----
9	.81	----	----	----	1.31	----	1.02	.89	----
10	HI .52	HS(.72	(.85	(.99)	HS .95	HS .93	HS .85	HS .65	HS .59
11	HS .63	HS .75	.91	1.07	HS1.10	HS .90	HS .74	----	----
12	.69	.79	.87	(1.06	HS1.15	----	----	----	----
13	----	----	----	(1.07)	----	----	----	----	----
14	----	.62	.75	1.01	----	----	----	----	----
15	.61	HM .68	HM .73	HS1.03	----	----	----	----	----
16	----	----	1.02	----	----	----	----	----	----
17	.74	.82	----	1.05	----	.96	.88	.72	.61
18	----	----	1.03	1.17	----	----	----	----	----
19	----	----	----	----	----	HS .94	----	----	----
20	.90	1.00	1.10	1.23	1.26	1.20	1.02	.89	.77
21	.77	.85	----	----	1.21	1.15	1.00	----	----
22	----	----	----	----	BD1.08	.96	BD .79	BD .63	BD .46
Averages	.71	.74	.97	1.14	.22	1.09	.95	.79	.66

NET RADIATION LATE REPORTS

Net radiation in langleys per day (8 a.m. to 8 a.m.) at Palmer, Alaska MARCH 1976

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys	12	36	15	5	8	-31	- 4	17	12	-27	-29	-11	12	-30	-50	-19	-18	-15	-29	-66	-43	-28	-51	-30	-30	-44	-64	-74	-50	-83	-57	-25

CORRECTIONS

Sun's zenith distance

Date	A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass 4.64								
Dec. 1975									
1					1.00				
2					.97				
3					.93				
4					.96				
5					.97				
6					.96				
7					.95				
8					.97				
9					.94				
10					.89				
11					.98				
13					.96				
14					.97				
17					.89				
18					.81				
19					.88				
24					.84				
25					.87				
29					1.04				
30					1.00				
Averages					.94				

REFERENCE NOTES

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES: Dates in the table apply to the [illegible] observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

\+ And also on an earlier date or dates.
D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile data can be evaluated.

B Number of days maximum 21.1°C. or above for Alaskan Stations.
Y Peak Gust.
\+ And also on an earlier date or dates.
U Indicates Urban site.
R Indicates Rural site.
Ø Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publication.

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters
°F. = 9/5 x °C + 32
1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

° Includes crop damage.
C Crop damage.
* No occurrence of storms or unusual weather phenomena reported.
@ Includes heavy sleet storm.
\# Freezing drizzle and freezing rain, commonly known as glaze.
Ø For breakdown of "All Others," and for detailed listing of other storms, see the Environmental Data Service, NOAA, monthly publication STORM DATA.
$ No Storm Data Report received for this State.
<> Report Incomplete.
† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5 Million
7	$5 Million to $50 Million
8	$50 Million to $500 Million
9	$500 Million to $5 Billion.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1/ Flooding continued at the end of the month.
NA Not available.

FLOOD STAGE DATA:

\# Highest Stage Observed
1/ Continued at end of month
Highest Stage of Record
E Estimated
P Provisional (Flood Stage)
U Unknown

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
\+ Observations for these stations are scheduled at 0000 G.C.T.
† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

REFERENCE NOTES

SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

()	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
*	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeterminable
BD	Blowing Dust	F	Fog	I	Intense Haze-indeterminable		
BN	Blowing Sand	GF	Ground Fog	K	Smoke	N	Sand
D	Dust	H	Haze	KI	Intense Smoke	S	Slight Haze-indeterminable
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		

SOLAR RADIATION TOTALS: Langley is the unit used to denote one gram calorie per square centimeter.

* Values with an asterisk are interpolated.
Data are only for those stations equipped with Eppley Model II sensors.

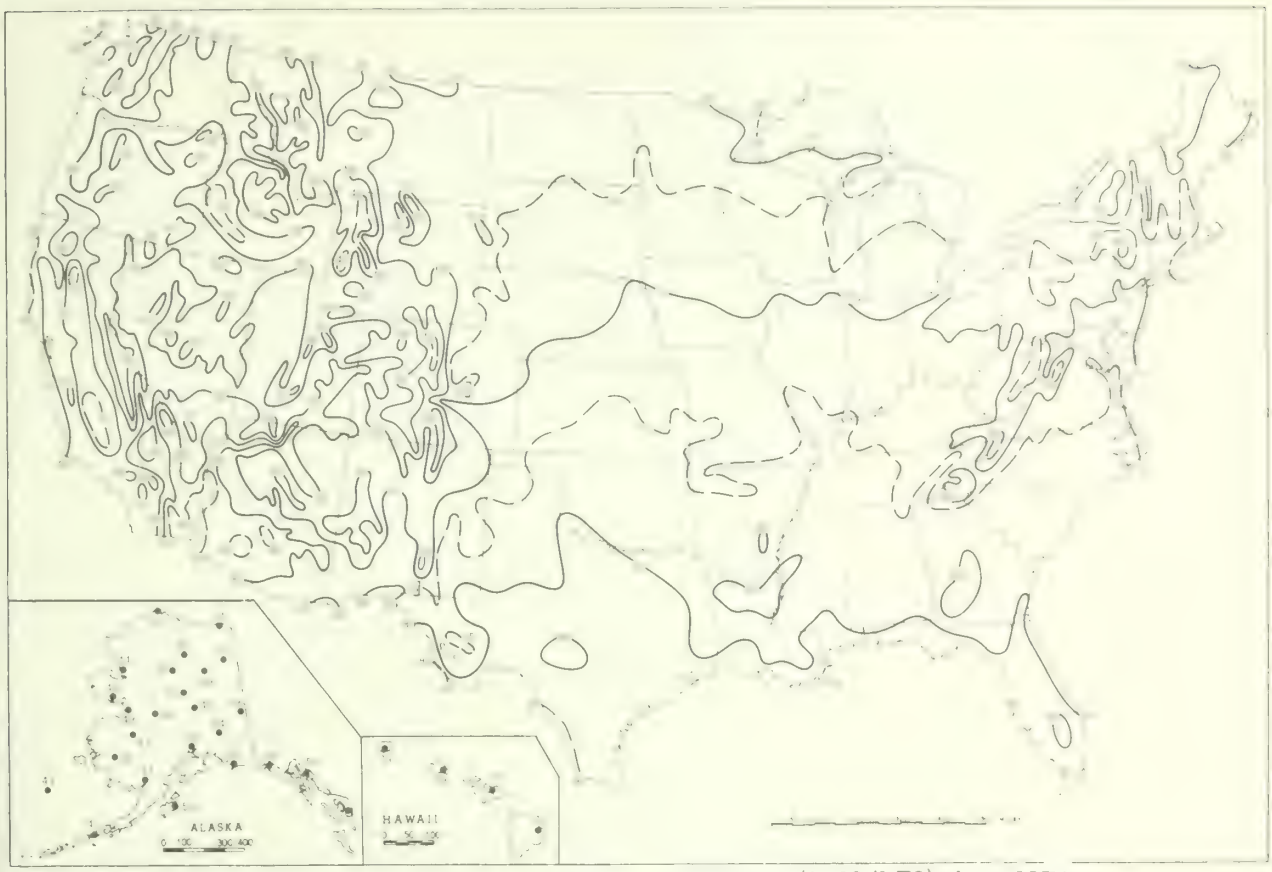
NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded Ω Ω Ω) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code $_{\lambda}$S designates the type of measurement made.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), June.



B. Temperature Departure from 30 - Year Mean (°F 1941-70), June 1976

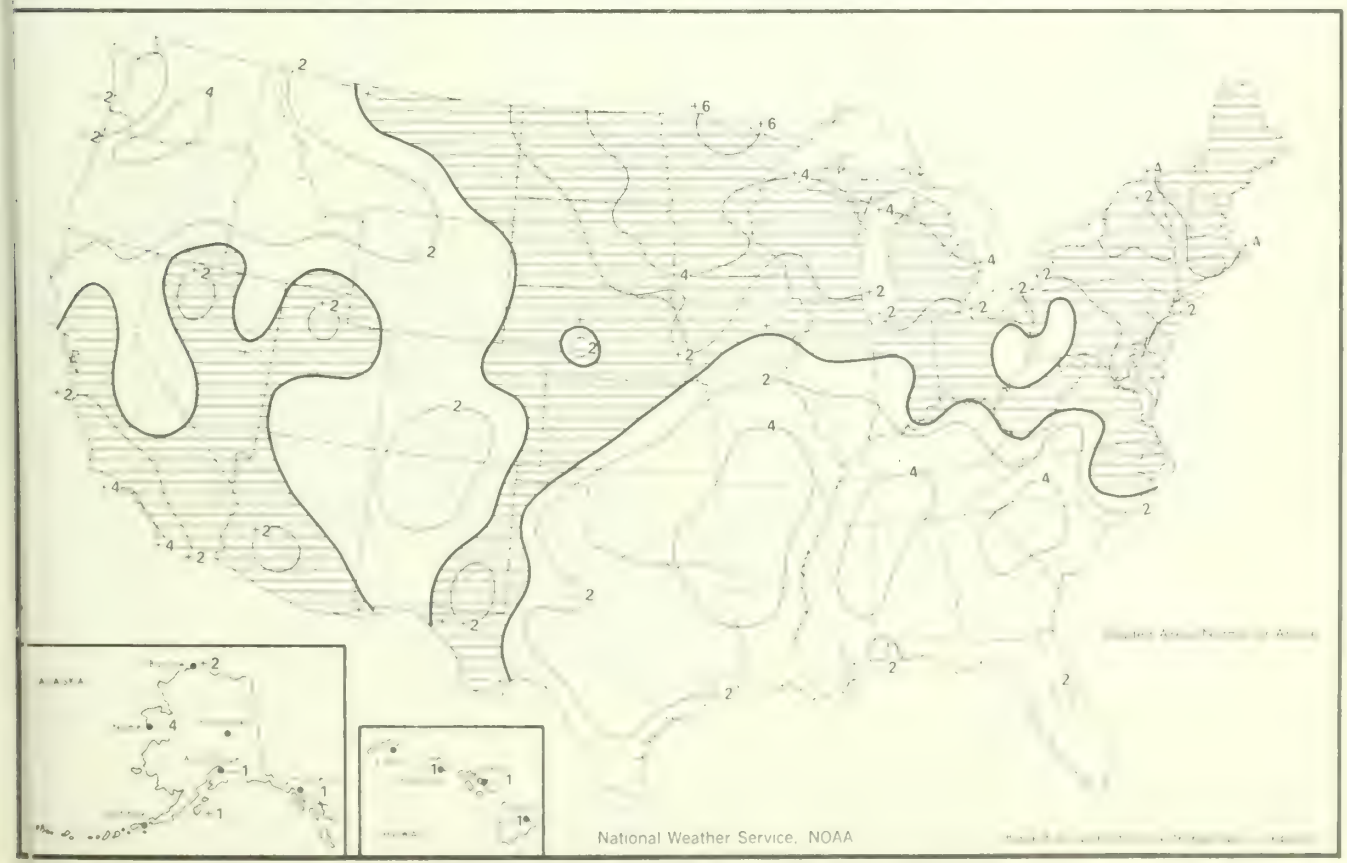
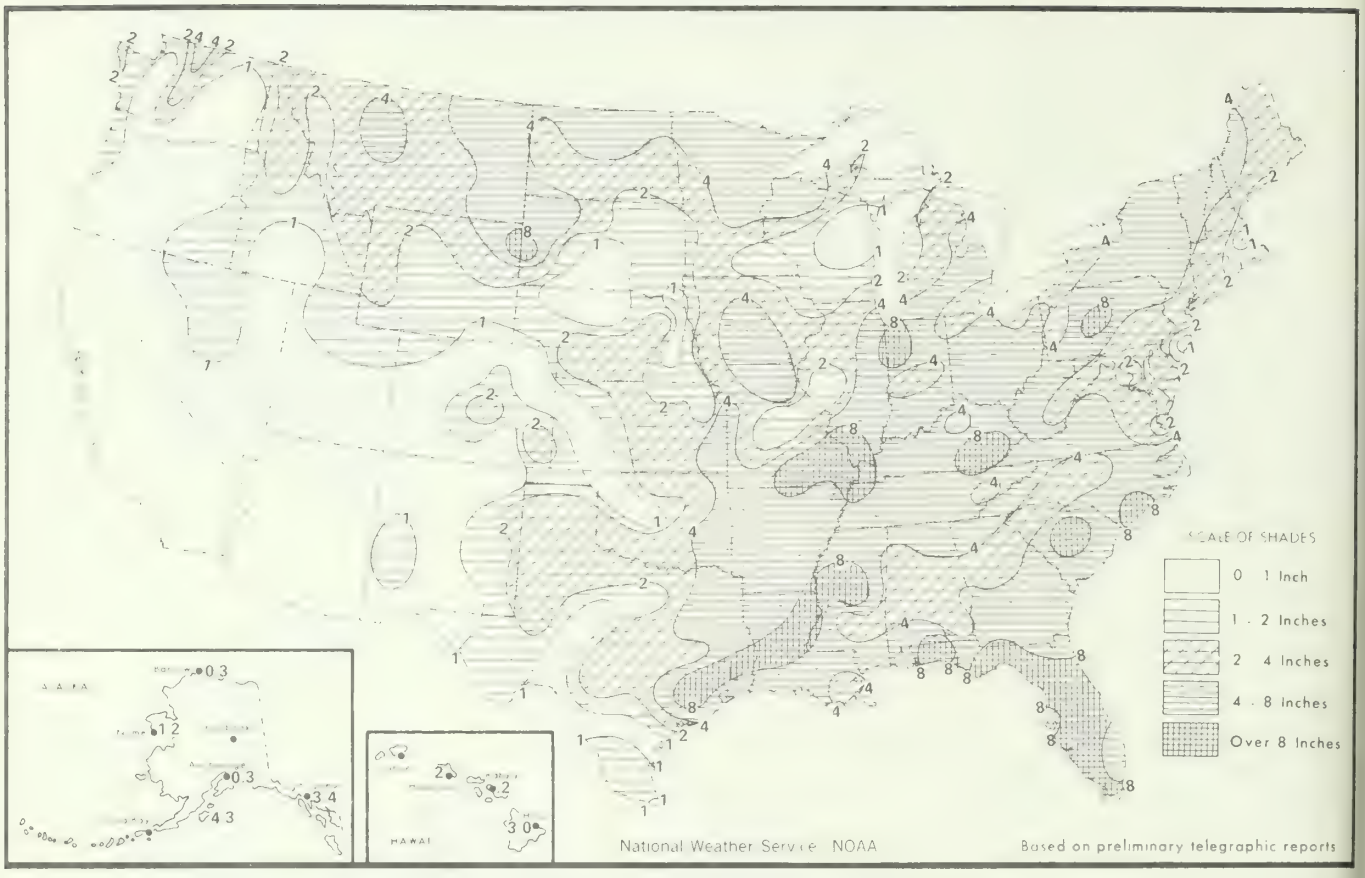
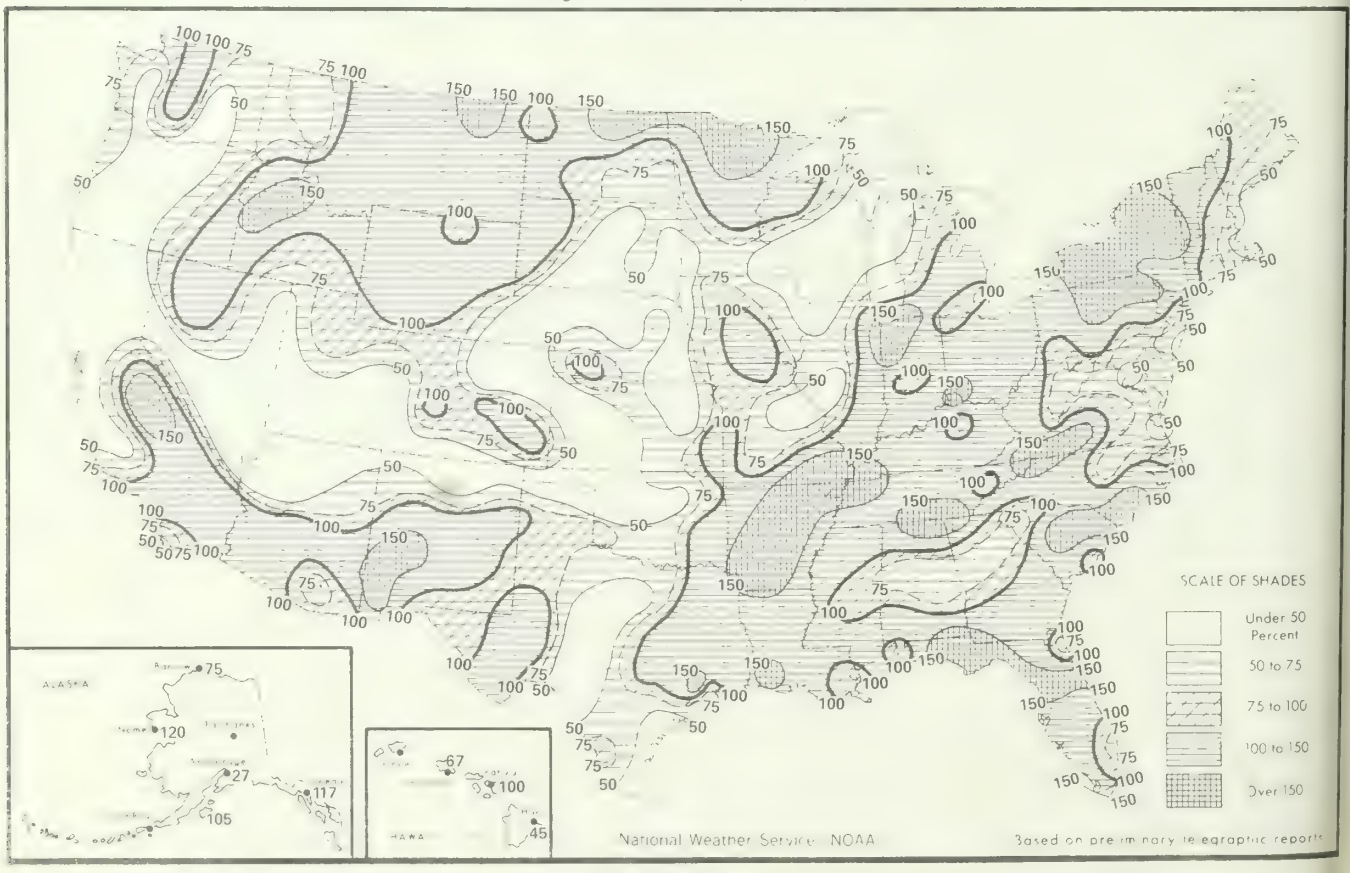
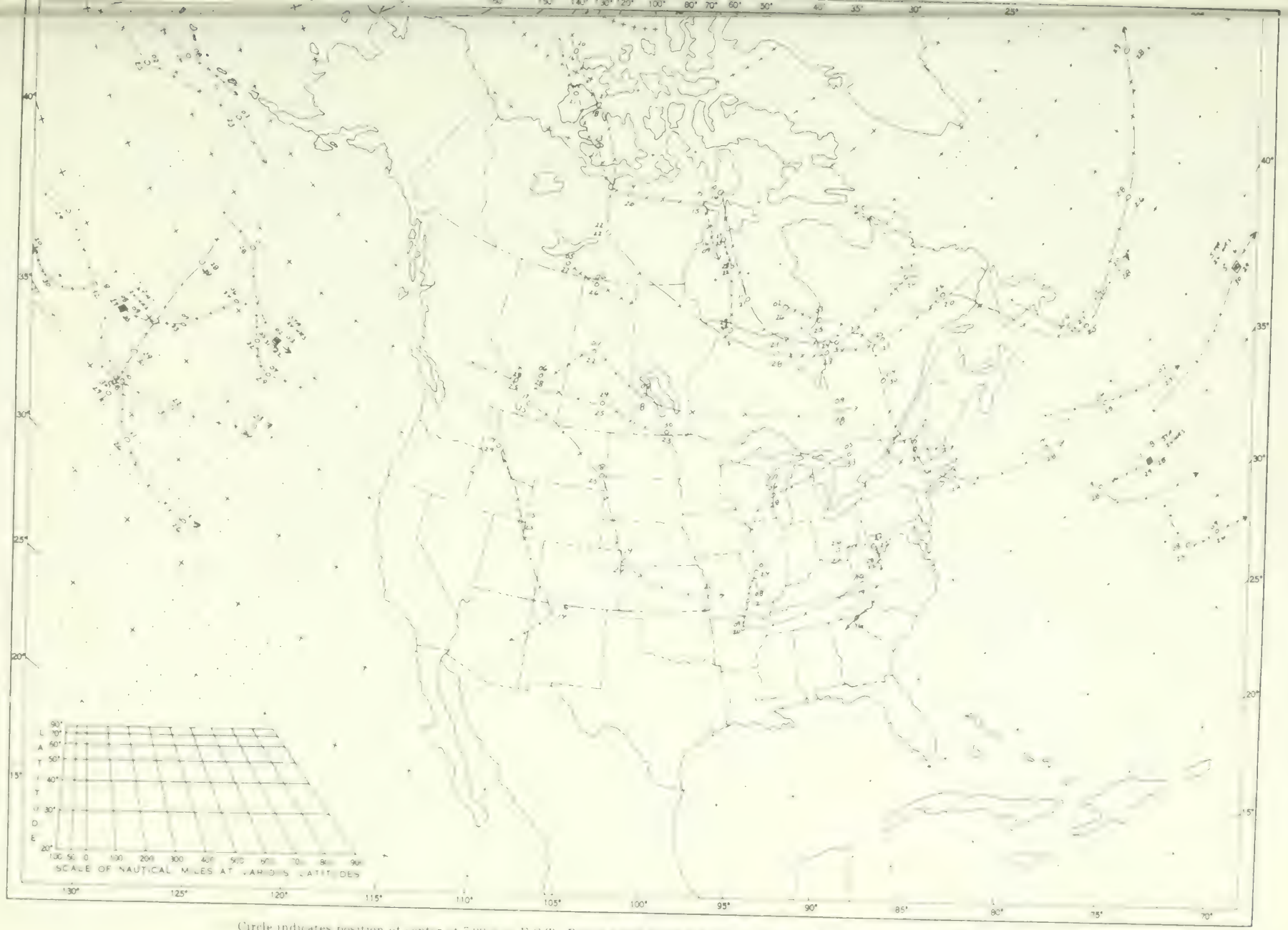


Chart II. A. Total Precipitation (Inches), June 1976



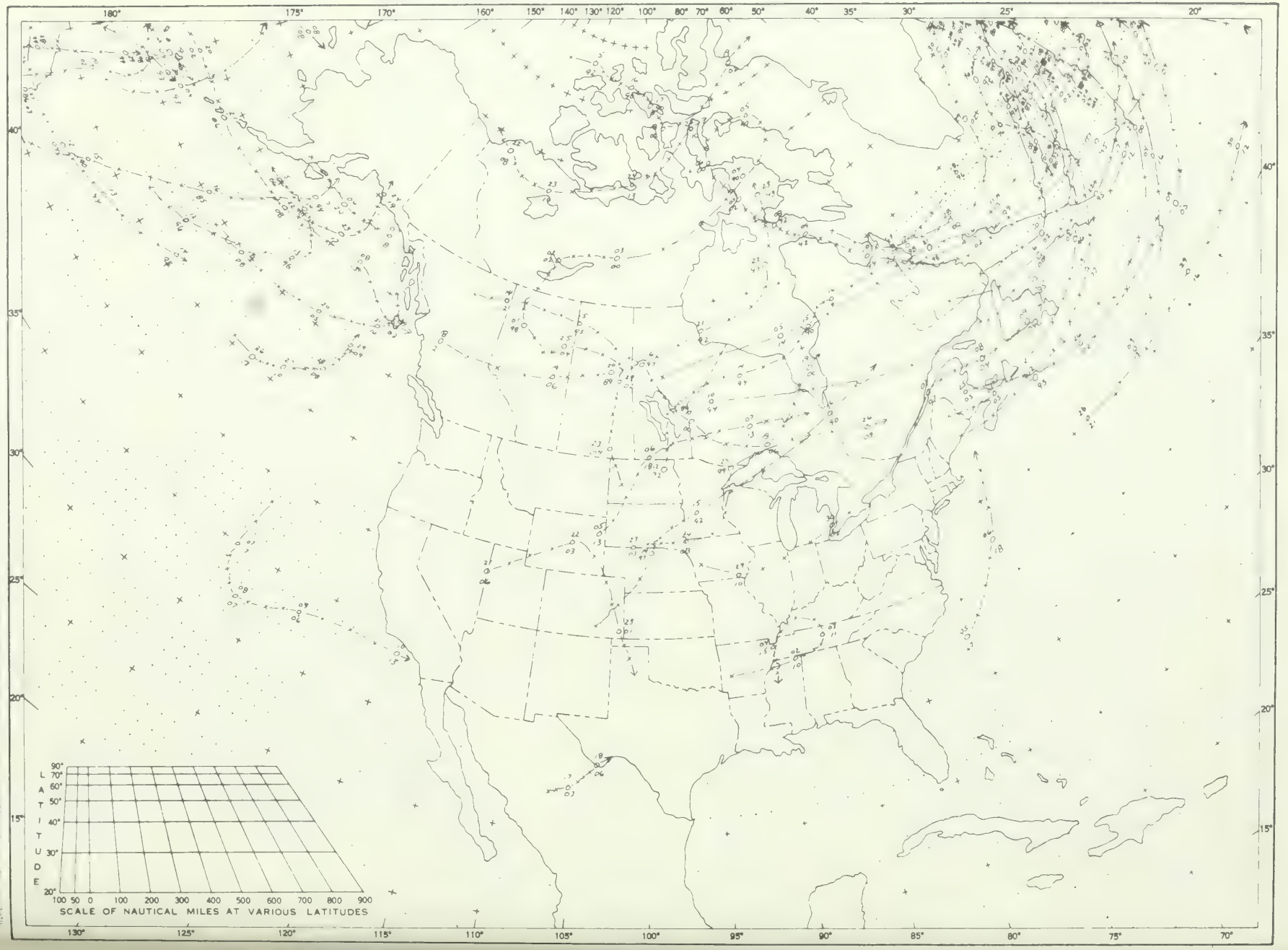
B. Percentage of Normal Precipitation, June 1976





Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below pressure to nearest millibar. X's indicate intervening 6 hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IV. Tracks of Centers of Cyclones at Sea Level, June 1976



Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar.

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JULY 1976 VOLUME 27 NUMBER 7

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

"I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND IS COMPILED FROM INFORMATION RECEIVED AT THE NATIONAL CLIMATIC CENTER, ASHEVILLE, NORTH CAROLINA 28801."

Daniel B. Mitchell

DIRECTOR
NATIONAL CLIMATIC CENTER

noaa NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION / ENVIRONMENTAL DATA SERVICE / NATIONAL CLIMATIC CENTER ASHEVILLE, N.C.

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

SUBSCRIPTION PRICE: $10.20 a year including annual summary; $9.10 additional for foreign mailing; 70¢ single copy; $1.80 annual summary. Make checks payable to Department of Commerce, NOAA; send payments and orders to: National Climatic Center, Federal Building, Asheville, NC 28801. Attn: Publications.

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

JULY 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

IGHLIGHTS: Hot, dry weather described conditions in he northern Plains. The hottest areas prevailed in astern South Dakota, southern Minnesota, southern isconsin, and most of Iowa, as temperatures averaged to 5° above normal for the month. Sioux Falls, SD, cored a record high of 106° on the 9th. In contrast, ooler than normal weather extended from Texas to ennessee and northeastward through New England. In exas the average temperature for the month was 8 to 0° below normal. Although precipitation was well ove normal in Texas and most of the West, a drought ersisted in California. Dry Weather dominated the orthern Plains lowering yields of small grains and reatening corn and soybeans in the western portion the Corn Belt.

Canadian cool air mass invaded the central Plains the first day of the month and triggered some olent weather, as it displaced the warm moist air om the Gulf of Mexico. On the second day, south- st Kansas recorded over 7 inches of rain from a eries of thunderstorms.

ring the first full week of the month, the air rmed rapidly behind the cool air as it moved south d eastward. The West, the northern Plains, and eat Lakes area experienced abnormally warm weather. erage temperatures in the driest parts of Minnesota d Wisconsin ranged up to 12° above normal. The ex- ssive heat increased the moisture demand and in- nsified the stress on crops.

st rain occurred from Texas eastward and along the st of the Appalachians, but very little rain fell sewhere. Another surge of cool air swept into the rthern Plains at the end of the week and brought ght showers and a respite from the extreme heat.

Mid-month brought somewhat better crop weather to the northern Plains. Some rain fell in most of the dry areas and substantial showers dampened southern Minnesota and southeastern South Dakota, while other precipitation concentrated in Texas and along the Appalachians into New England. Numerous showers favored crops and water reservoirs in the Southwest. Although the California mountain areas received some light showers, most of the State acquired no rain and the extreme drought continued.

As the month evolved, more showers favored parts of the dry northern Plains. Although Wisconsin accumulated 1 to 2 inches during the third week, some areas remained dry. More showers fell in Minnesota and southeast South Dakota keeping some of the threatened crops alive.

Generally good precipitation fell through the Corn Belt, but some areas lacked adequate moisture. As showers continued in the Southwest, pastures improved and waterholes were filling. Moderate drought prevailed along the East Coast from Long Island to Delaware and inland into Virginia and North Carolina as precipitation seemed to by-pass the area.

The end of the month brought the first dry week in July to Texas and allowed harvesting and other farm work to progress. More rain fell in southern Minnesota, Iowa, and Wisconsin and restored enough soil moisture to meet the demand and to benefit the crops. Northern Minnesota and the rest of the northern Plains received little relief from the drought. Tempertures remained generally near normal in most of the Nation.

TROPICAL STORM ANNA

JULY 28 - AUGUST 6, 1976

National Hurricane Center, NOAA
Miami, Florida

The first tropical storm of 1976 began as a subtropical system. During the latter part of July a weak, ill-defined surface low pressure system formed several hundred miles southeast of Bermuda. Satellite pictures showed a disorganized area of convective activity near and to the east of the apparent low pressure center. On July 28 the cloud pattern became sufficiently well organized to define a low-level circulation center. This is the point at which the official track of Anna begins.

The system did not possess the typical appearance of a tropical depression since the main convection was displaced well to the east of the circulation center with additional convective clouds extending far to the northeast. Because of the system's appearance, size, and location of origin it was classified as a subtropical depression.

At 0200 GMT July 30 the vessel, M/S Pointe Allegre, passed through the center of the intensifying storm and reported a barometric fall from 1014 mbs to 999 mbs followed by a rapid rise to 1010 mbs. Meanwhile, the ship experienced heavy thunderstorms with gusts to 60 kts and winds shifting from southeast to south southwest to northwest. Upon delayed receipt of this report, the National Hurricane Center issued a special subtropical storm advisory for marine, aviation and military interests at 1100 GMT July 30.

As the storm moved toward the east northeast, it rapidly acquired the appearance of a tropical storm on satellite pictures and was designated Tropical Storm Anna at 1600 GMT July 30. The storm moved on a relatively steady east northeastward course at about 20 knots for the next thirty-six hours. The storm's intensity, as inferred from satellite pictures, also remained steady at approximately 40 knots.

As Anna crossed south of the Azores on August 1, its path became blocked by a surface ridge to the east and north. During this period the cloud pattern became disorganized and the system lost tropical characteristics. The center became difficult to track since it was nearing the limit of GOES Satellite range. However, a ship (call sign: FNXX) encountered the storm in its extratropical stage about 400 miles northeast of the Azores at 1200 GMT August 2 and reported easterly winds of 46 knots with a pressure of 998.5 mbs. The storm's motion continued essentially blocked for the next three days as it made a slow counter-clockwise loop through the Azores. During this interval the system gradually weakened and eventually passed east of the Azores as a 1015 mb low on August 6.

No reports of damage or casualties caused by Anna have been received. The Azores experienced only fringe effects of the storm, except in its weakened extratropical form. All wind reports from the islands were below gale force. There were no reconnaissance flights into Anna.

TROPICAL STORM ANNA

JULY 28 - AUGUST 6, 1976

Preliminary Track

MONTH	DAY	HOUR (GMT)	POSITION LATITUDE	POSITION LONGITUDE	PRESSURE (MBS)	WIND (KTS)	CLASSIFICATION
July	28	1800	28.0	52.3	1015	20	Subtropical Depression
	29	0000	28.0	51.3			
		0600	28.0	50.3			
		1200	28.0	49.3	1012	25	
		1800	28.0	48.1			
	30	0000	28.3	45.6	1005	30	
		0600	29.8	42.0	999	35	Subtropical Storm
		1200	30.1	39.9		40	
		1800	30.5	37.7		40	Tropical Storm
	31	0000	31.3	35.7			
		0600	31.9	33.6			
		1200	32.5	31.5			
		1800	33.2	29.4			
Aug	1	0000	33.9	27.1		35	
		0600	35.0	24.9			
		1200	36.3	23.2		35	Extratropical
		1800	37.8	21.8			
	2	0000	39.2	20.9			
		0600	40.6	20.3		40	
		1200	42.1	20.5		45	
		1800	42.7	21.0	1004	40	
	3	0000	42.8	21.9		35	
		0600	42.7	22.8			
		1200	42.5	23.7	1006	30	
		1800	41.9	24.9			
	4	0000	41.2	25.9			
		0600	40.4	26.7			
		1200	39.5	27.5	1008		
		1800	38.5	28.1			
	5	0000	38.0	28.1			
		0600	37.5	27.7			
		1200	37.4	27.3	1012	25	
		1800	37.4	26.7			
	6	0000	37.5	26.3			
		0600	37.6	25.6			
		1200	37.9	25.1	1015		
		1800	38.2	24.6			

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

JULY 1976

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	Tuscaloosa FAA AP	103	25	5 Stations	53	20+	Valley Head	11.74	Coden	1.02
Alaska	Haines	98	31	2 Stations	25	5+	Little Port Walter	15.87	Homer WSO AP	.35
Arizona	Dateland Whitewng Ranch	122	7+	Fort Valley	30	3	Apache Powder Company	9.50	Harquahala Plains	.00
Arkansas	Subiaco	104	31	Huntsville	48	17	Berryville 4 NW	10.52	Mena	.18
California	Death Valley	121	10+	Truckee Ranger Station	15	1	Bodie	3.83	143 Stations	.00
Colorado	2 Stations	107	31	Climax	22	17	Parker 6 E	5.68	Grand Junction WSO AP	.20
Connecticut	Hartford WSO AP	92	20+	Coventry	39	26	Lake Konomoc	6.33	New Haven Airport	1.41
Delaware	Georgetown 5 SW	94	22	2 Stations	49	26	Dover	7.12	Georgetown 5 SW	2.47
Florida	Perry	101	27+	Smith Creek	61	27+	De Soto City 8 SW	11.30	Apalachicola WSO AP	.75
Georgia	3 Stations	101	28+	Blairsville Exp. Station	48	18	Carrollton	8.33	Homerville 3 WSW	1.37
Hawaii	Keawakapu Beach 260.2	93	16	Mauna Loa Slope Obs.	32	20	Manoa Tunnel 2 716	17.12	13 Stations	.00
Idaho	Brownlee Dam	106	17	Stanley	26	13+	Mountain Home	2.95	3 Stations	00
Illinois	3 Stations	102	27+	Mount Carroll	42	17	Cobden 2 S	9.18	Griggsville	.53
Indiana	Warsaw	103	14	2 Stations	44	18+	Shoals Hiway 50 Bridge	7.90	Cambridge City	1.18
Iowa	Rock Rapids	108	10	Elkader 5 SSW	41	17	Lorimor	7.91	Castana Exp. Farm	.43
Kansas	Hill City FAA AP	109	30	4 Stations	50	16+	Mound Valley 3 WSW	16.47	Fowler 3 NNE	09
Kentucky	Gilbertsville KY Dam	102	24	Vanceburg	40	18	Hickman 1 E	9.13	Williamstown 3 NW	1.80
Louisiana	4 Stations	99	31+	2 Stations	60	8+	Alexandria	10.50	New Orlenas Citrus	1.04
Maine	2 Stations	94	7+	2 Stations	35	26	West Enfield	12.54	Rockland	4.05
Maryland	Solomons	96	24	Oakland 1 SE	43	18	National Arboretum D. C.	6.76	Cumberland 2	1.84
Massachusetts	3 Stations	94	6	Chester 2	34	26	Peabody	7.99	Heath	1.95
Michigan	3 Stations	99	15+	Herman	33	12+	Mount Clemens AF Base	9.22	Watersmeet	.47
Minnesota	Browns Valley	108	25	3 Stations	38	21+	Elgin	6.50	Browns Valley	.36
Mississippi	Fulton 3 W	103	24	Fulton 3 W	51	18	Merrill	8.93	Independence 3 N	.79
Missouri	Cole Camp 9 SE	105	31	Berryman 6 NW	41	17	Seligman	11.62	Chillicothe Radio KCHI	.03
Montana	Miles City FAA AP	108	24	Wisdom	26	28	Glasgow WSO AP	5.00	Billings Water Plant	T
Nebraska	Butte	107	10	2 Stations	43	16+	Purdum	8.45	Scottsbluff WSO AP	.25
Nevada	Sunrise Manr Las Vegas	117	8	Reese River Ranger Station	23	1	Diablo	5.29	Lathrop Wells 16 SSE	.04
New Hampshire	Epping	94	6	Mount Washington	29	25	South Danbury	10.18	Peterboro 2 S	2.83
New Jersey	2 Stations	94	30+	Long Valley	41	26	Boonton 1 SE	7.10	Princeton Water Works	1.01
New Mexico	Fruitland 2 E	106	11	Chama	32	2	Crossroads 2 NE	8.21	Shiprock	.00
New York	New York Laurel Hill	94	28+	2 Stations	34	26+	Mount Pleasant Farm	10.11	New York Laurel Hill	.89
North Carolina	Rocky Mount 8 ESE	102	24	Banner Elk	41	6	Bodie Island	9.52	Chapel Hill 2 W	54
North Dakota	Breien	106	24	Wishek	34	16	Cavalier	4.25	Oakes 2 S	.10
Ohio	Toledo Blade	101	15	Milford Water Works	40	18	Akron-Canton WSO AP	9.00	Dayton WSO AP	.95
Oklahoma	Okeene	108	31	Zoe 1 E	51	7	Vinita 3 NNE	9.01	Reydon 4 W	.14
Oregon	Sisters	109	17	Fremont	20	1	Nehalem 9 NE	4.95	Mikkalo 6 W	.00
Pennsylvania	Marcus Hook	96	28	Clermont 4 NW	33	26	Myerstown	10.04	Raystown Lake 2	1.74
Puerto Rico	Dos Bocas	95	17	Adjuntas Substation	56	23	Coloso	10.51	2 Stations	.00
Rhode Island	Providence WSO AP	91	6	Kingston	42	26	Providence WSO AP	8.08	Block Island WSO AP	1.78
South Carolina	Ridgeland 5 NE	104	16	Caesars Head	51	7	Brookgreen Gardens	8.15	Gaston Shoals	1.47
South Dakota	Harrold 12 SSW	113	10	2 Stations	37	16	Long Valley	5.38	Miller	T
Tennessee	Savannah	100	24	Mountain City 2	15	2	Cheatham Lock and Dam	7.33	Athens	1.35
Texas	Pecos	106	2	Llano	51	10	Port O Connor	18.89	Higgins	32
Utah	2 Stations	110	10+	Bryce Canyon N. P. 1 S	30	2	Castleton	3.19	2 Stations	.14
Vermont	Burlington WSO AP	94	6	Mount Mansfield	36	25	Peru	11.29	Burlington WSO AP	3.05
Virginia	Wakefield 1 NW	101	15	Mt. Lake Biological Sta.	40	2	Boykins	6.96	Bedford	.84
Virgin Islands	Frenchmans Bay	92	29+	3 Stations	70	31+	Cruz Bay	2.17	Tague Bay	.17
Washington	Priest Rapids Dam	103	16	2 Stations	29	28+	Quinault Ranger Station	4.70	Satus Pass 2 SSW	.00
West Virginia	Hamlin	99	25	Canaan Valley	37	26+	Buckhannon 2 W	8.76	Matoaka	.72
Wisconsin	Madison WSO AP	104	10	Jump River 5 E	30	1	El Dorado	6.15	Mellen 4 NE	.95
Wyoming	Whalen Dam	106	10	Bondurant 3 NW	25	16+	Upton	5.20	Pavillion	.00

CLIMATOLOGICAL DATA

METRIC UNITS

JULY 1976

State and Station	Elevation ground	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days Max 32.2°C or above	Temperature: No. of days Min 0°C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days 25 mm or more	Precipitation: No. of days With thunderstorms	Precipitation: Snow, Ice pellets Total	Precipitation: Snow, Ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No. of days (sunrise to sunset): Clear 0.3	No. of days (sunrise to sunset): Partly cloudy 4-7	No. of days (sunrise to sunset): Cloudy 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	°C	°C	°C	°C	°C		°C				°C	%	mm	mm	mm			mm	mm	m/s		m/s							%
ALABAMA																																
BIRMINGHAM	189	995.6	1017.6	31.7	19.7	25.7	-0.9	36.7	25	15.6	2	16	0	20.6	77	125	-8	48	10	12	0	0	0.8	32	11.2	NE	23	2	13	16	7.1	49
HUNTSVILLE	190	994.9	1017.6	30.7	19.4	25.1	-1.3	35.6	25	15.0	2	15	0	18.9	73	110	-13	55	11	12	0	0	0.6	27	16.5	33	16	6	16	9	5.6	
MOBILE	64	1010.2	1018.1	33.9	23.2	28.6	1.0	37.8	23	21.7	10+	27	0	21.1	71	113	-113	34	14	16	0	0	0.8	35	11.6	E	30	5	16	10	6.3	
MONTGOMERY	59	1010.5	1017.6	32.3	21.3	26.8	-0.4	35.6	23	18.9	20	20	0	21.1	75	77	-52	29	11	11	0	0	1.2	28	14.3	NW	4	11	12	8	5.4	71
ALASKA																																
ANCHORAGE	35	1007.8	1012.8	18.9	10.9	14.9	0.6	25.6	9	5.6	24	8	0	8.3	66	15	-37	9	9	1	1	0	1.7	19	10.3	16	26	5	5	21	7.5	58
ANNETTE	34	1011.5	1015.4	17.7	11.6	14.6	0.3	31.7	30	8.3	18	4	0	9.4	74	168	30	44	24	0	0	0	1.7	15	10.3	15	25+	1	3	27	9.1	
BARROW	9	1011.9	1012.5	6.7	0.4	3.6	-0.1	16.7	29	-1.7	27+	0	19	1.1	86	9	-13	4	7	0	1	0	2.8	8	9.8	E	3	5	9	17	7.0	
BARTER ISLAND	12	1011.2	1012.9	6.2	0.8	3.5	-0.9	21.7	29	-2.8	9	1	13	2.2	91	10	-18	5	6	0	4	1	3.7	8	12.5	E	30+	4	11	16	6.8	
BETHEL	38	1005.8	1011.3	17.3	7.9	12.7	0.1	23.9	22	3.9	4+	5	0	8.3	78	29	-21	6	18	1	2	0	1.0	21	10.7	19	3	1	7	23	8.4	
BETTLES	196	987.1	1011.2	20.2	9.1	14.7	0.3	28.9	22	0.6	2	14	0	8.9	71	75	29	12	19	7	0	0	0.4	28								
BIG DELTA	386			22.4	11.2	16.8	1.6	29.4	29	6.7	6	19	0			98	35	46	12		0	0										
COLD BAY	29	1006.8	1010.4	12.6	7.1	9.8	-0.2	17.8	23	3.9	4	0	0	7.8	89	49	-8	16	14	6	7	0	2.5	16	18.8	15	18	2	3	28	9.3	
FAIRBANKS	133	993.6	1010.4	22.2	10.9	16.6	0.6	30.0	29	7.2	31	20	0	10.0	68	41	-8	12	12	5	1	0	1.4	29	12.5	4	22	4	9	18	7.0	
GULKANA	479			20.5	8.1	14.3	0.5	27.8	31	0.0	24	12	1			12	-35	6	7		0	0										
HOMER	19	1010.2		16.7	7.5	12.1		20.6	9	3.9	25+	0	0			9	-34	5	7	0	0	0	1.4	24	8.9	27	11	5	8	18	7.1	
JUNEAU	4	1013.5	1014.3	18.1	8.2	13.2	0.0	28.9	31	3.3	19	7	0	9.4	80	63	-56	21	17	6	2	0	2.0	16	12.5	22	9+	5	2	24	9.0	38
KING SALMON	15	1009.1	1011.2	16.9	6.6	11.8	-0.7	23.9	18	2.2	25+	3	0	8.3	81	66	11	26	13	4	0	0	1.7	18	11.2	16	25	0	6	25	8.7	
KODIAK	4	1008.8	1013.0	15.8	9.7	12.8	0.5	26.7	9	7.8	4+	2	0	10.0	86	104	14	42	17	6	2	0	2.4	7	11.2	9	20	3	3	25	8.5	
KOTZEBUE	3	1009.8	1010.3	18.9	7.1	13.0	-1.1	21.1	24	-1.1	2	1	2			29	-10	19	7	0	1	0	2.2	26	15.6	15	3	8	10	13	6.2	
MC GRATH	105	998.3	1010.8	21.1	9.4	14.8	0.3	29.4	22	5.6	25	19	0	8.9	71	46	-12	14	19	6	0	0	0.8	24	8.0	18	3	0	14	17	7.7	
NOME	4	1009.5	1010.3	13.2	5.3	9.2	-0.8	25.0	14	-0.6	5	2	2	5.0	73	24	-37	1	11	0	0	0	1.4	21	14.3	18	3	6	11	14	5.6	43
ST. PAUL ISLAND	7			9.2	5.3	7.3	-0.3	14.4	1	-1.7	2	0	2			40	-17	15	18						11.6	1	244				9.3	
SUMMIT	731			16.7	6.4	11.6	0.5	24.4	23+	0.6	6	4	0			27	-52	6	14						13.0	23	27	3			9.1	
TALKEETNA	105			20.4	9.6	15.0	0.6	28.9	31	6.7	31+	13	0			53	-36	16	14	7	0	0			8.0	15	21					
UNALAKLEET	5			16.2	8.1	12.2		25.6	13	2.2	5	3	0			44		25	15		0	0			15.6	20	3	3	13	19	7.3	
VALDEZ	7			17.1	9.1	13.1	1.3	23.3	31+	5.0	24	4	0			47	-62		10		0	0			7.6	28	9					
YAKUTAT	9	1012.9	1014.0	16.8	8.0	12.4	0.6	25.6	8	3.3	24	3	0	9.4	82	99	-116	21	17	6	0	0	1.1	36	9.4	13	9	7	11	13	6.8	
ARIZONA																																
FLAGSTAFF	2135	791.1	1014.8	27.8	10.4	19.2	0.5	32.2	9	3.9	3	1	0	7.8	55	97	34	39	19	21	1	0	1.3	32	17.4	NW	28	5	20	6	5.4	71
PHOENIX	339	971.2	1009.0	38.9	27.3	33.1	0.2	43.9	7	21.7	24	31	0	12.8	33	38	19	26	5	5	1	0	0.7	23	38.4+	SE	7	12	13	5	4.4	88
TUCSON	788	924.5	1009.9	34.7	23.0	28.8	-1.3	40.6	5	20.0	29	24	0	14.4	47	30	-30	8	11	14	1	0	1.3	18	15.2	NE	5	6	9	16	6.6	79
WINSLOW	1492	852.7	1012.3	33.9	17.3	25.6	-0.1	38.9	10	13.3	3	24	0	11.1	49	39	-9	16	9	12	1	0	1.4	24	15.6	13	11	9	18	4	4.8	
YUMA	59	1001.4	1008.5	39.7	26.5	33.1	-1.2	45.6	6	20.6	2	31	0	14.4	37	4	2	3	2	1	1	0	3.1	17	14.8	W	28	16	10	5	7.5	80
ARKANSAS																																
FORT SMITH	136	1006.7	1016.8	32.5	19.5	26.0	-1.9	37.8	31	15.0	17	20	0	19.4	70	33	-50	13	8	7	1	0	1.6	23	15.2	W	14	17	10	4	3.9	78
LITTLE ROCK	78	1007.8	1017.2	32.7	20.8	26.8	-0.7	37.2	29+	16.7	18	19	0	20.0	69	68	-40	11	7	5	1	0	1.4	23	8.0	NE	29+	15	11	5	4.3	87
CALIFORNIA																																
BAKERSFIELD	149	994.2	1011.9	36.9	22.6	29.7	0.9	43.3	26	15.0	1	28	0	12.2	36	7	-1	5	1	1	1	0	0.7	32	8.3	NW	27+	26	5	0	1.1	
BISHOP	1252			35.0	14.3	24.7	-0.1	40.6	9	10.0	3	26	0			37	33	21	1						20.6?		22	18		6	3.3	
BLUE CANYON	1609	841.5	1012.7	25.7	14.3	20.1	0.0	30.6	26+	7.8	2	0	0	3.9	36	7	2	3	1	1	1	0	1.0	36	6.3	ESE	15+					
EUREKA	13			16.8	11.5	14.2	0.7	20.0	8+	8.3	1	0	0			85	2	5	4						12.1	N	29	7	8	15	6.7	40
FRESNO	100	1000.0	1011.5	35.3	17.3	26.3	-0.7	40.0	26	11.7	2	28	0	11.7	43	7	2	3	1	1	1	0	0.3	34	8.0	NW	4	28	4	1	1.3	95
LONG BEACH	8	1012.2	1013.4	27.0	19.2	23.1	0.8	32.8	7	17.2	24	2	0	16.7	73	7	4	3	1	1	1	0	2.4	23	7.2	W	9	11	10	5	6.6	
LOS ANGELES	30	1009.8	1013.4	23.8	18.6	21.2	0.9	26.7	7	16.7	1	0	0	16.7	79	1	1	1	1	1	1	0	3.1	25	7.2	W	19	6	14	9	5.7	
LOS ANGELES	92			27..	18..	22.6	-0.3	32.2	8+	16.7	31+	2	0			0									6.7	SW	21+	9	9	2	3.8	81
MT SHASTA R	1080	892.7	1014.3	29.3	11.2	20.3	0.4	35.6	26	0.0	.	4	1			7	-1	3	3		0	0										
OAKLAND	7	1014.9	1015.0	21.0	13.9	17.5	0.2	24.4	22+	12.2	1	0	0	13.3	81	7	2	7	1	1	1	0	2.8	29	16.2	W	25	19	9	3	3.8	
RED BLUFF	104	999.0	1011.1	37.2	19.7	28.4	0.5	43.9	25	13.9	2	29	0	10.6	35	1	-1	1	1	1	1	0	1.0	16	9.5	S	18	19	4	3	2.8	92
SACRAMENTO	5	1010.8	1011.5	34.1	15.3	24.7	0.7	40.6	26	10.6	16	23	0	12.2	53	0	0	0	0	0	0	0	3.4	21	11.2	SW	15	20	3	2	1.6	99
SANDBERG R	1377	863.2	1013.4	28.8	15.9	22.3	-1.0	34.4	8+	8.9	1	5	0			1							2.7	34	8.1	SE						
SAN DIEGO	4	1012.5	1013.6	23.8	19.6	21.7	0.8	27.2	7	17.8	15	0	0	16.7	74	1	1	2	1	1	1	0	1.1	26	7.6	NW	24+	6	12	12	7.1	40
SAN FRANCISCO	7	1013.9	1014.7	19.3	12.4	16.9	0.0	27.2	12	10.6	1	0	0	10.6	71	7	2	7	1	1	1	0	5.3	29	13.9	SE	1	19	8	4	3.0	
SAN FRANCISCO	16			17.9	12.3	15..	0.4	21.7	22	11.7	28+	0	0			0	0															
SANTA MARIA	72			22.9	12.4	17.7	0.9	26.7	27	7.2	2	0	0			7	-1	7	1									23	10	3	3.7	
STOCKTON	7	1011.5	1012.4	33.9	16.4	25.2	0.4	40.6	26+	11.1	1	22	0	10.6	46	2	2	2	1	1	1	0	3.8	29	12.2	SE	26+	26	3	1	1.7	
COLORADO																																
ALAMOSA	2297	776.5		27.9	9.7	18.8	-0.1	31.7	30+	5.0	3	0	0			34	7	10	4		1	0	1.9	11				19	14	7	4.8	

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							
COLORADO																																
COLORADO SPRINGS	1873	814.4	1013.5	30.1	14.4	22.3	0.8	35.6	10	11.1	5+	12	0	8.9	49	44	-34	16	13	17	0	0	1.6	6	17.4	36	15	10	18	3	4.5	
DENVER	1610	838.8	1012.5	31.7	16.3	24.1	1.3	36.7	10	12.8	3	16	0	7.8	42	59	13	33	6	12	0	0	0.8	18	15.6	NW	14+	11	15	5	4.8	75
GRAND JUNCTION	1476	852.0	1010.2	35.3	17.6	26.4	0.5	40.6	10	13.3	21	28	0	5.6	31	5	-7	3	4	5	0	0	1.4	13	15.2	SE	9	20	5	6	3.6	87
PUEBLO	1429	856.4	1011.8	33.8	15.7	24.8	0.1	37.8	10	11.1	3	25	0	11.7	50	53	5	21	6	6	0	0	0.9	9	19.2	N	13	13	14	4	4.3	89
CONNECTICUT																																
BRIDGEPORT	2	1012.9	1013.3	26.4	17.5	21.9	-1.3	31.1	6	10.6	26	0	0	17.2	76	53	-34	32	10	2	0	0	1.9	25	10.7	30	12	7	14	10	6.0	
HARTFORD	52	1006.1	1012.4	28.7	16.1	22.4	-0.2	33.3	20+	10.0	26	3	0	15.0	66	89	3	45	14	2	0	0	1.0	26	9.8	NW	24	4	17	10	6.2	62
DELAWARE																																
WILMINGTON	23	1011.2	1014.2	28.4	18.4	23.4	-0.9	32.8	28	12.2	26	1	0	16.7	67	110	1	42	14	7	0	0	1.9	28	10.7	31	12	7	9	15	6.6	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1003.1	1014.5	29.0	15.7	22.3	-1.7	33.9	29	10.0	26	5	0	16.7	74	59	-45	15	15	8	0	0	1.1	26	12.5	34	11	7	11	13	6.1	
WASHINGTON NATIONAL	3	1012.2	1014.5	30.9	20.6	25.8	-0.2	33.9	24	16.7	26	7	0	17.8	64	115	11	30	13	9	0	0	1.8	26	22.4	N	15	8	12	11	5.9	69
FLORIDA																																
APALACHICOLA U	6	1017.6	1018.2	31.7	22.6	27.1	-0.3	34.4	16	20.6	25+	14	0	22.2	77	19	-185	5	6	15	0	0	1.6	27	7.6	NE	22+	6	15	10	6.1	
DAYTONA BEACH	9	1016.9	1018.3	32.1	22.2	27.2	-0.1	35.6	16	20.0	9	19	0	21.1	74	27	-143	9	9	17	0	0	1.4	20	9.4	22	31+	5	17	9	5.6	
FORT MYERS	5	1018.3	1018.7	32.3	22.7	27.6	-0.5	34.4	20	20.0	27	19	0	22.2	77	156	-70	57	14	23	0	0	0.3	13	16.5	30	21	3	20	8	5.9	
JACKSONVILLE	8	1016.9	1017.9	33.4	21.9	27.7	0.4	36.1	16+	20.0	7+	25	0	22.2	77	137	-49	49	13	16	0	0	1.3	23	17.9	SW	6	8	15	8	5.6	73
KEY WEST	1	1017.6	1018.4	31.7	26.6	29.2	-0.1	33.3	19+	25.0	21+	10	0	22.2	67	21	-84	7	7	13	0	0	3.0	12	13.9	SE	20+	4	17	10	6.0	89
LAKELAND U	65			33.6	22.5	28.1	0.5	36.1	25+	20.0	11+	26	0			201	-4	64	16		0	0						2	24	5	5.8	70
MIAMI	2	1019.0	1019.1	31.4	25.4	28.4	0.4	33.9	16	22.8	9	10	0	22.2	70	97	-78	55	9	7	0	0	1.7	11	10.7	11	6	3	21	7	6.1	
ORLANDO/MC COY AFB	29	1014.9	1018.8	33.6	22.4	28.0	0.6	36.1	16	20.6	4+	28	0	22.2	77	179	-31	38	18	22	0	0	1.2	21	13.9	4	17	3	21	7	6.0	
PENSACOLA	34	1013.9	1018.1	31.8	22.2	27.0	-0.7	35.0	23	20.0	2+	19	0	21.1	74	155	-31	49	15	20	0	0	1.2	25	8.0	33	31	4	19	8	5.9	
TALLAHASSEE	17	1015.6	1018.0	33.9	21.8	27.8	0.6	37.8	16	20.0	10+	25	0	22.2	78	106	-120	32	12	22	0	0	0.7	25	11.2	35	22	6	19	6	5.7	
TAMPA	6	1018.3	1018.5	31.9	23.3	27.6	-0.1	34.4	20	21.1	23	11	0	21.7	73	116	-98	37	11	19	0	0	0.8	25	14.3	14	7	1	16	14	6.8	49
WEST PALM BEACH	5	1018.3	1019.1	31.7	22.9	27.3	-0.4	34.4	16+	20.6	10	14	0	22.2	76	42	-123	12	7	12	0	0	1.4	14	9.4	24	1	4	19	8	5.9	
GEORGIA																																
ATHENS	244	988.2	1016.4	31.1	19.9	25.5	-0.7	36.1	24	15.6	2	16	0	19.4	72	75	-57	39	4	9	0	0	1.4	28	7.6	24	4	3	14	14	6.4	
ATLANTA	308	980.7	1016.9	30.1	19.3	24.7	-0.9	34.4	25	15.0	14+	8	0	19.4	76	109	-15	43	6	10	0	0	1.9	29	11.2	26	4	4	17	10	6.1	65
AUGUSTA	41	1011.2	1016.3	33.1	20.6	26.8	-0.1	37.8	25	17.2	3	21	0	20.6	73	51	-78	17	10	8	0	0	1.0	24	11.2	24	4	8	11	12	6.0	
COLUMBUS	117	1003.4		32.5	21.5	27.0	0.0	36.7	25	16.7	2	21	0	21.1	76	69	-77	41	13	12	0	0	1.1	28	10.3	28	4	11	12	8	5.3	
MACON	108	1004.4	1017.1	34.1	20.7	27.4	0.0	38.3	25	16.7	2	23	0	20.6	74	50	-65	19	7	11	0	0	1.4	27	19.2	SW	4	6	15	10	6.2	67
ROME	194			31.7	19.1	25.4	-0.6	36.1	25+	12.8	2	16	0			151	30	83	10		0	0										
SAVANNAH	14	1015.9	1017.5	33.1	22.2	27.6	0.3	36.1	16	16.9	6	23	0	22.2	78	192	-8	55	12	14	0	0	1.7	23	15.6	NW	13	3	11	17	7.2	65
HAWAII																																
HILO	8	1016.3	1017.5	27.1	20.1	23.6	-0.4	28.3	31+	17.8	19	0	0	20.0	81	139	-104	20	28	0	0	0	0.4	1	7.2	E	12+	2	14	15	7.1	51
HONOLULU	2	1016.6	1017.0	30.3	22.7	26.6	-0.2	31.7	30	21.1	31+	0	0	16.7	56	6	-9	2	11	0	0	0	5.6	6	12.5	NE	4	4	23	4	5.6	66
KAHULUI	15	1014.2		30.2	21.3	25.8	0.1	31.7	31	15.6	30	0	0			5	-5	2	7	0	0	0	6.8	5	15.2	E	3	17	11	3	3.6	72
LIHUE	31	1013.2	1018.6	29.2	24.1	26.6	0.8	30.6	24	22.8	31	0	0	21.1	72	53	6	12	24	0	0	0	6.3	6	11.2	E	11	5	19	7	5.9	66
IDAHO																																
BOISE	865	914.0	1012.0	31.9	13.7	22.8	-0.8	39.4	16	8.3	2	18	0	7.8	41	29	25	20	7	5	0	0	0.9	32	13.0	E	20+	18	7	6	3.6	81
LEWISTON	431			31.3	15.3	23.3	0.3	37.2	26+	9.4	2	15	0			11	-3	7	5		0	0			16.5Y		7	12	9	10	4.7	
POCATELLO	1358	862.9	1012.2	31.8	12.6	22.2	0.3	38.9	23	6.1	3	16	0	6.7	40	20	10	14	3	2	0	0	2.1	24	18.8	S	31	13	13	5	4.0	82
ILLINOIS																																
CAIRO U	96			31.6	21.6	26.6	-0.4	37.8	24	18.3	18+	15	0			135	53	65	10		0	0			15.2	N	27					77
CHICAGO O HARE	201	991.2	1015.0	29.3	17.3	23.3	1.2	36.7	14	11.1	2	7	0	15.6	62	37	-51	26	7	3	0	0	1.1	26	11.2	24	14	14	10	7	4.6	
CHICAGO MIDWAY	185	993.2	1015.4	29.2	18.3	23.8	0.1	37.8	10	11.1	17	7	0	16.1	65	78	-26	55	9	8	0	0	0.8	26	11.2	N	31+	13	10	8	4.5	72
MOLINE	177	994.2	1015.4	30.6	18.0	24.3	0.7	37.2	14	10.6	2	9	0	16.7	66	85	-31	42	7	4	0	0	1.3	23	11.6	NW	14+	12	13	6	4.4	79
PEORIA	199	992.2	1015.9	30.5	17.6	24.1	0.1	36.7	14	10.6	1	8	0	17.2	69	76	-20	28	10	9	0	0	0.8	22	11.6	NW	28	12	12	7	5.0	71
ROCKFORD	221	988.8	1015.5	30.0	15.9	23.0	0.3	36.1	14+	7.8	1	7	0	14.4	60	52	-56	22	8	8	0	0	0.9	24	13.0	3	30	13	10	8	4.9	
SPRINGFIELD	179	993.9	1015.8	32.1	18.3	25.2	0.7	37.2	14	10.6	17	17	0	17.2	63	58	-39	26	7	6	0	0	0.9	22	9.8	N	30+	13	10	8	4.6	74
INDIANA																																
EVANSVILLE	116	1002.7	1016.3	31.1	18.9	25.0	-0.4	37.8	24	13.3	18+	13	0	18.3	69	54	-41	26	6	4	0	0	1.0	27	8.5	SW	15	11	15	5	4.8	78
FORT WAYNE	241	985.4	1014.9	29.1	16.3	22.7	-0.1	35.0	14	10.0	13	5	0	16.1	69	81	-18	27	9	9	0	0	2.1	26	16.1	NW	15	11	11	9	5.3	78

CLIMATOLOGICAL DATA

METRIC UNITS

JULY 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No of days (sunrise to sunset): Clear 0.3	No of days (sunrise to sunset): Partly cloudy, 4.7	No of days (sunrise to sunset): Cloudy, 8.10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
INDIANA																																
INDIANAPOLIS	241	987.5	1016.2	29.4	17.1	23.3	-0.6	34.4	14	9.4	13	5	0	18.3	76	78	-15	18	10	11	0	0	1.1	26	12.1	W	28+	10	16	5	4.8	70
SOUTH BEND	236	987.5	1015.9	28.3	17.0	22.7	0.3	36.7	14	11.7	13	4	0	16.7	72	151	58	81	11	12	0	0	1.7	29	13.4	23	15	13	9	9	4.9	
IOWA																																
BURLINGTON	211			30.6	18.2	24.4	0.3	36.7	14	10.0	17	10	0	17.8	67	126	31	83	6	4	0	0	0.6	24	14.3	34	20	11	12	8	4.6	
DES MOINES	286	981.4	1015.5	30.6	19.6	25.1	1.2	36.1	9	12.8	17	10	0	16.1	61	47	-36	25	7	8	0	0	1.0	19	13.9	NW	14	10	10	11	5.4	75
DUBUQUE	322	977.3		29.2	16.6	22.9	0.9	35.0	10	8.9	17	5	0			50	-59	17	8		0	0										
SIOUX CITY	334	975.6	1014.5	31.2	18.0	24.6	0.6	38.9	9	10.0	16	12	0	16.7	65	38	-46	24	6	6	0	0	1.8	14	17.0	NW	15	10	13	8	5.2	77
WATERLOO	265	984.4	1015.5	30.3	16.2	23.2	0.7	37.2	9	8.9	17	9	0	15.0	62	72	-49	59	6	6	0	0	0.7	20	14.3	34	30	12	10	9	5.0	
KANSAS																																
CONCORDIA	448	962.4	1014.1	33.3	19.6	26.4	0.9	40.6	30	12.8	5	20	0	16.1	58	29	-55	18	4	8	0	0	3.3	16	13.0	S	18+	12	11	8	4.9	89
DODGE CITY	787	925.5	1013.6	34.6	19.2	26.9	0.7	38.9	31+	16.1	16+	25	0	15.0	54	13	-65	7	5	8	0	0	4.2	18	18.3	NE	17	16	7	8	4.2	83
GOODLAND	1114	888.9	1014.6	32.3	16.8	24.6	0.2	37.8	30	12.8	16	16	0	13.9	57	66	-3	29	7	7	0	0	3.4	16	14.3	W	3	16	10	5	4.0	
TOPEKA	267	984.1	1015.3	32.0	19.1	25.6	-0.1	37.8	30	11.7	6+	21	0	19.4	71	52	-55	33	4	4	0	0	2.0	18	11.6	NE	15	15	8	8	4.3	90
WICHITA	403	968.5	1015.3	32.4	19.0	25.8	-1.3	38.3	31+	15.6	6	18	0	16.7	60	156	45	75	5	6	0	0	3.8	18	11.6	NW	15+	17	9	5	3.9	83
KENTUCKY																																
COVINGTON	265	985.1	1016.1	29.2	17.1	23.1	-1.1	34.4	23+	10.6	17	5	0	18.3	75	59	-45	20	11	9	0	0	1.7	26	10.7	32	15	8	14	9	5.6	
LEXINGTON	294	981.7	1016.7	28.6	16.9	22.8	-1.8	33.3	24+	11.7	17	3	0	17.2	74	171	49	72	10	7	0	0	1.3	22	12.5	W	6	6	18	7	5.6	
LOUISVILLE	145	998.6	1015.9	30.6	19.1	24.9	-0.1	35.6	24+	13.9	18	9	0	18.9	72	53	-42	16	8	8	0	0	1.2	24	14.3	NE	24	6	18	7	5.7	77
LOUISIANA																																
ALEXANDRIA	28	1013.9	1018.1	33.8	21.0	27.4	0.3	37.2	25	18.3	19	23	0	21.7	77	93	-36	53	10	11	0	0	1.3	15	10.3	1	18	5	14	12	6.3	
BATON ROUGE	20	1015.6	1018.4	32.2	22.3	27.3	-0.5	34.4	31+	20.0	19+	21	0	22.2	79	144	28	54	17	14	0	0	2.8	27	9.4	3	25	3	18	10	5.5	
LAKE CHARLES	9	1016.9	1018.1	31.8	22.2	27.0	-1.0	34.4	31	19.4	19	18	0	22.8	82	69	-97	27	9	14	0	0	2.9	15	9.8	4	17	8	6	17	6.8	
NEW ORLEANS	1	1016.9	1017.6	32.2	22.4	27.3	-0.4	34.4	31+	21.1	22+	20	0	22.8	80	144	-27	26	16	16	0	0	2.8	25	12.5	28	29+	2	13	16	7.4	67
SHREVEPORT	77	1006.5	1017.7	31.4	20.9	25.9	-2.6	33.9	31+	17.2	7	14	0	22.2	84	88	15	29	12	12	1	0	1.4	21	8.9	13	26	8	11	12	6.1	52
MAINE																																
CARIBOU	190	987.8		23.2	12.0	17.6	-0.7	32.8	6	6.1	26	1	0			171	70	49	15		0								3	12	16	7.2	
PORTLAND	12	1009.5	1011.9	24.8	12.8	18.8	-1.2	32.8	20	7.2	26+	1	0	13.9	78	190	124	61	14	7	0	0	1.1	23	8.5	SW	8	6	12	13	6.4	64
MARYLAND																																
BALTIMORE	45	1009.1	1014.2	29.6	18.2	23.9	-0.9	33.3	28	12.8	26	6	0	17.8	72	141	38	44	11	11	0	0	1.8	27	16.1	NW	11	9	11	11	5.9	62
MASSACHUSETTS																																
BLUE HILL OBS	192			26.3	15.9	21.1	-0.6	32.2	20	11.1	26	1	0			115	40	47	12		0	0			13.9	SSW	16					62
BOSTON	5	1011.5	1012.8	27.1	18.3	22.7	-0.2	33.9	20	14.4	26+	3	0	16.1	69	109	46	59	12	5	0	0	1.5	25	11.6	W	3	6	12	11	5.7	69
WORCESTER	301	976.6		24.9	14.9	19.9	-1.3	29.4	20+	10.6	25	0	0	14.4	75	83	-9	41	15	7	0	0	1.8	26	8..	20	24+	4	15	12	4.5	
MICHIGAN																																
ALPENA	210	989.2	1014.1	26.6	12.8	19.7	1.1	33.3	10	7.2	25	2	0	15.0	76	52	-12	15	9	7	0	0	1.4	29	14.3	NE	9	10	15	6	4.8	73
DETROIT	190			29.2	18.4	23.9	1.0	36.1	14	15.0	13+	6	0	15.6	61					7			1.8	29	9.4	1	31+					
DETROIT METRO	193	990.5	1014.1	29.8	15.4	22.6	0.2	37.2	14	8.9	13	6	0	16.1	70	37	-41	18	13	5	0	0	1.7	18	12.5	NW	11+	6	21	4	5.1	64
FLINT	235	986.8	1014.1	27.9	15.4	21.7	0.8	34.4	14	10.0	13	3	0	15.0	67	50	-26	15	10	8	0	0	1.6	28	9.8	31	11+	8	16	7	5.5	
GRAND RAPIDS	235	986.1	1014.7	29.7	15.2	22.5	0.6	34.4	14	8.3	13	8	0	15.0	65	21	-58	13	7	6	0	0	1.7	26	13.4	W	14	12	14	5	4.4	69
HOUGHTON LAKE	350	973.2	1014.8	26.7	12.2	19.4	0.4	32.2	14+	8.3	18	2	0	13.3	69	31	-47	15	8	3	0	0	1.3	30	7.6	SE	20	11	11	11	5.2	
LANSING	256	983.4	1014.4	28.3	14.9	21.6	0.0	35.0	14	7.2	13	4	0	16.7	73	66	-7	46	8	5	0	0	1.7	28	12.1	NW	11	8	18	5	5.3	79
MARQUETTE W	206			24.1	14.2	19.2	0.1	32.8	6	8.9	25	1	0			39	-39	24	7		0	0			16.6	SW	28+					78
MUSKEGON	191	991.9	1014.6	27.4	14.8	21.1	0.0	32.8	14	10.6	13+	1	0	15.0	71	30	-34	9	8	6	0	0	1.7	25	10.7	20	10	15	8	6	4.5	
SAULT STE MARIE	220	987.5	1013.4	25.3	9.8	17.4	-0.3	32.2	6	5.0	17	1	0	12.8	75	31	-35	14	8	5	0	0	1.9	30	12.1	NW	12	16	14	9	5.1	68
MINNESOTA																																
DULUTH	435	964.8	1015.5	25.6	12.3	18.9	0.3	30.0	19+	7.8	2+	0	0	12.2	66	66	-29	34	9	7	0	0	1.3	29	11.6	NW	22	10	13	7	5.0	75
INTERNATIONAL FALLS	359	971.9	1014.4	26.2	11.4	18.9	0.1	31.1	19	7.2	12	0	0	12.8	71	145	44	49	15	7	0	0	1.9	26	17.9	33	19	13	11	6	5.3	
MINNEAPOLIS	254	985.1	1014.9	31.2	17.8	24.5	2.3	37.8	13	11.1	17	11	0	13.3	51	62	-31	19	8	7	0	0	1.4	28	13.0	NW	15	10	10	5	4.7	87
ROCHESTER	395	968.5	1015.4	31.1	15.3	23.2	2.1	36.7	10	8.9	1	8	0	13.9	60	50	-45	22	12	6	0	0	1.2	23	17.0	27	30	10	12	9	5.3	
ST CLOUD	313	978.7	1015.5	29.8	13.2	21.5	0.3	36.7	13+	7.2	17	7	0			49	-33	15	9		0	0								14	12	5	4.4	
MISSISSIPPI																																
JACKSON	94	1006.1	1017.7	32.6	21.4	27.1	-0.5	35.6	25+	18.3	19	22	0	22..	80	124	18	45	8	11	1	0	1.3	29	11.6	11	15	6	16	7	5.1	53

CLIMATOLOGICAL DATA

METRIC UNITS

JULY 1976

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m s		m s							%
COLORADO																																
COLORADO SPRINGS	1873	814.4	1013.5	30.1	14.4	22.3	0.8	35.6	10	11.1	5+	12	0	8.9	49	44	-34	16	13	17	0	0	1.6	6	17.4	36	15	10	18	3	4.5	
DENVER	1610	838.8	1012.5	31.7	16.3	24.1	1.3	36.7	10	12.8	3	16	0	7.8	42	59	13	33	6	12	0	0	0.8	18	15.6	NW	14+	11	15	5	4.8	75
GRAND JUNCTION	1476	852.0	1010.2	35.3	17.6	26.4	0.5	40.6	10	13.3	21	28	0	5.6	31	5	-7	3	4	5	0	0	1.4	13	15.2	SE	9	20	5	6	3.6	87
PUEBLO	1428	856.4	1011.6	33.8	15.7	24.8	0.1	37.8	10	11.1	3	25	0	11.7	50	53	5	21	6	6	0	0	0.9	9	19.2	N	13	13	14	4	4.3	89
CONNECTICUT																																
BRIDGEPORT	2	1012.9	1013.3	26.4	17.5	21.9	-1.3	31.1	6	10.6	26	0	0	17.2	76	53	-34	32	10	2	0	0	1.9	25	10.7	30	12	7	14	10	6.0	
HARTFORD	52	1006.1	1012.4	28.7	16.1	22.4	-0.2	33.3	20+	10.0	26	3	0	15.0	66	89	3	45	14	2	0	0	1.0	26	9.8	NW	24	4	17	10	6.2	62
DELAWARE																																
WILMINGTON	23	1011.2	1014.2	28.4	18.4	23.4	-0.9	32.8	28	12.2	26	1	0	16.7	67	110	1	42	14	7	0	0	1.9	28	10.7	31	12	7	9	15	6.6	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1003.1	1014.5	29.0	15.7	22.3	-1.7	33.9	29	10.0	26	5	0	16.7	74	59	-45	15	15	8	0	0	1.1	26	12.5	34	11	7	11	13	6.1	
WASHINGTON NATIONAL	3	1012.2	1014.5	30.9	20.6	25.8	-0.2	33.9	24	16.7	26	7	0	17.8	64	115	11	30	13	9	0	0	1.9	26	22.4	N	15	8	12	11	5.9	69
FLORIDA																																
APALACHICOLA U	6	1017.6	1018.2	31.7	22.6	27.1	-0.3	34.4	16	20.6	25+	14	0	22.2	77	19	-185	5	6	15	0	0	1.6	27	7.6	NE	22+	6	15	10	6.1	
DAYTONA BEACH	9	1016.9	1018.3	32.1	22.2	27.2	-0.1	35.6	16	20.0	9	19	0	21.1	74	27	-143	9	9	17	0	0	1.4	20	9.4	22	31+	5	17	9	5.6	
FORT MYERS	5	1018.3	1018.7	32.3	22.7	27.6	-0.5	34.4	20	20.0	27	19	0	22.2	77	156	-70	57	14	23	0	0	0.3	13	16.5	30	21	3	20	8	5.9	
JACKSONVILLE	8	1016.9	1017.9	33.4	21.9	27.7	0.4	36.1	16+	20.0	7+	25	0	22.2	77	137	-49	49	13	16	0	0	1.3	23	17.9	SW	6	8	15	8	5.6	73
KEY WEST	1	1017.6	1018.4	31.7	26.6	29.2	-0.1	33.3	19+	25.0	21+	10	0	22.2	67	21	-84	7	7	13	0	0	3.0	12	13.9	SE	20+	4	17	10	6.0	89
LAKELAND U	65			33.6	22.5	28.1	0.5	36.1	25+	20.0	11+	26	0			201	-4	64	16		0	0						2	24	5	5.8	70
MIAMI	2	1019.0	1019.1	31.4	25.4	28.4	0.4	33.9	16	22.8	9	10	0	22.2	70	97	-78	55	9	7	0	0	1.7	11	10.7	11	6	3	21	7	6.1	
ORLANDO/MC CY AFB	29	1014.9	1018.8	33.6	22.4	28.0	0.6	36.1	16	20.6	4+	28	0	22.2	77	179	-31	38	18	22	0	0	1.2	21	13.9	4	17	3	21	7	6.0	
PENSACOLA	34	1013.9	1018.1	31.8	22.2	27.0	-0.7	35.0	23	20.0	2+	19	0	21.1	74	155	-31	49	15	20	0	0	1.2	25	8.0	33	31	4	19	8	5.9	
TALLAHASSEE	17	1015.6	1018.0	33.9	21.8	27.8	0.6	37.8	16	20.0	10+	25	0	22.2	78	106	-120	32	12	22	0	0	0.7	25	11.2	35	22	6	19	6	5.7	
TAMPA	6	1018.3	1018.5	31.9	23.3	27.6	-0.1	34.4	20	21.1	23	11	0	21.7	73	116	-98	37	11	19	0	0	0.8	25	14.3	14	7	1	16	14	6.8	49
WEST PALM BEACH	5	1018.3	1019.1	31.7	22.9	27.3	-0.4	34.4	16+	20.6	10	14	0	22.2	76	42	-123	12	7	12	0	0	1.4	14	9.4	24	1	4	19	8	5.9	
GEORGIA																																
ATHENS	244	988.2	1016.4	31.1	19.9	25.5	-0.7	36.1	24	15.6	2	16	0	19.4	72	75	-57	39	4	9	0	0	1.4	28	7.6	24	4	3	14	14	6.4	
ATLANTA	308	980.7	1016.9	30.1	19.3	24.7	-0.9	34.4	25	15.0	14+	8	0	19.4	76	109	-15	43	6	10	0	0	1.9	29	11.2	26	4	4	17	10	6.1	65
AUGUSTA	41	1011.2	1016.3	33.1	20.6	26.8	-0.1	37.8	25	17.2	3	21	0	20.6	73	51	-78	17	10	8	0	0	1.0	24	11.2	24	4	8	11	12	6.0	
COLUMBUS	117	1003.4		32.5	21.5	27.0	0.0	36.7	25	16.7	2	21	0	21.1	76	69	-77	41	13	12	0	0	1.1	28	10.3	28	4	11	12	8	5.3	
MACON	108	1004.4	1017.1	34.1	20.7	27.4	0.0	38.3	25	16.7	2	23	0	20.6	74	50	-65	19	7	11	0	0	1.4	27	19.2	SW	4	6	15	10	6.2	67
ROME	194			31.7	19.1	25.4	-0.6	36.1	25+	12.8	2	16	0			151	30	83	10		0	0										
SAVANNAH	14	1015.9	1017.5	33.1	22.2	27.6	0.3	36.1	16	18.9	6	23	0	22.2	78	192	-8	55	12	14	0	0	1.7	23	15.6	NW	13	3	11	17	7.2	65
HAWAII																																
HILO	8	1016.3	1017.5	27.1	20.1	23.6	-0.4	28.3	31+	17.8	19	0	0	20.0	81	139	-104	20	28	0	0	0	0.4	1	7.2	E	12+	2	14	15	7.1	51
HONOLULU	2	1016.6	1017.0	30.3	22.7	26.6	-0.2	31.7	30	21.1	31+	0	0	16.7	56	6	-9	2	11	0	0	0	5.6	6	12.5	NE	4	4	23	4	5.6	66
KAHULUI	15	1014.2		30.2	21.3	25.8	0.1	31.7	31	15.6	30	0	0			5	-5	2	7	0	0	0	6.8	5	15.2	E	3	17	11	3	3.6	72
LIHUE	31	1013.2	1018.6	29.2	24.1	26.6	0.8	30.6	24	22.8	31	0	0	21.1	72	53	6	12	24	0	0	0	6.3	6	11.2	E	11	5	19	7	5.9	66
IDAHO																																
BOISE	865	914.0	1012.0	31.9	13.7	22.8	-0.8	39.4	16	8.3	2	18	0	7.8	41	29	25	20	7	5	0	0	0.9	32	13.0	E	20+	18	7	6	3.6	81
LEWISTON	431			31.3	15.3	23.3	0.3	37.2	26+	9.4	2	15	0			11	-3	7	5		0	0			16.5Y		7	12	9	10	4.7	
POCATELLO	1358	862.9	1012.2	31.8	12.6	22.2	0.3	38.9	23	6.1	3	16	0	6.7	40	20	10	14	3	2	0	0	2.1	24	18.8	S	31	13	13	5	4.0	82
ILLINOIS																																
CAIRO U	96			31.6	21.6	26.6	-0.4	37.8	24	18.3	18+	15	0			135	53	65	10		0	0			15.2	N	27					77
CHICAGO O HARE	201	991.2	1015.0	29.3	17.3	23.3	1.2	36.7	14	11.1	2	7	0	15.6	62	37	-51	26	7	3	0	0	1.1	26	11.2	24	14	14	10	7	4.6	
CHICAGO MIDWAY	185	993.2	1015.4	29.2	18.3	23.8	0.1	37.8	10	11.1	17	7	0	16.1	65	78	+26	55	9	8	0	0	0.8	26	11.2	N	31+	13	10	8	4.5	72
MOLINE	177	994.2	1015.4	30.6	18.0	24.3	0.7	37.2	14	10.6	2	9	0	16.7	66	85	-31	42	7	4	0	0	1.3	23	11.6	NW	14+	12	13	6	4.4	79
PEORIA	199	992.2	1015.9	30.5	17.6	24.1	0.1	36.7	14	10.6	1	8	0	17.2	69	76	-20	28	10	9	0	0	0.8	22	11.6	NW	28	12	12	7	5.0	71
ROCKFORD	221	988.8	1015.5	30.0	15.9	23.0	0.3	36.1	14+	7.8	1	7	0	14.4	60	52	-56	22	8	8	0	0	0.9	24	13.0	3	30	13	10	8	4.9	
SPRINGFIELD	179	993.9	1015.8	32.1	18.3	25.2	0.7	37.2	14	10.6	17	17	0	17.2	63	58	-39	26	7	6	0	0	0.9	22	9.8	N	30+	13	10	8	4.6	74
INDIANA																																
EVANSVILLE	116	1002.7	1016.3	31.1	18.9	25.0	-0.4	37.8	24	13.3	18+	13	0	18.3	69	54	-41	26	6	4	0	0	1.0	27	8.5	SW	15	11	15	5	4.8	78
FORT WAYNE	241	985.4	1014.9	29.1	16.3	22.7	-0.1	35.0	14	10.0	13	5	0	16.1	69	81	-18	27	9	9	0	0	2.1	26	16.1	NW	15	11	11	9	5.3	78

CLIMATOLOGICAL DATA

METRIC UNITS

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State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind				No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
											No of days								No of days		Snow, Ice pellets				Fastest mile (1.6 kilometers)							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Resultant speed	Resultant direction	Speed	Direction	Date	Clear 0-3	Partly cloudy, 4-7	Cloudy 8-10		
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
INDIANA																																
INDIANAPOLIS	241	987.5	1016.2	29.4	17.1	23.3	-0.6	34.4	14	9.4	13	5	0	18.3	76	78	-15	18	10	11	0	0	1.1	26	12.1	W	28+	10	16	5	4.8	70
SOUTH BEND	236	987.5	1015.1	28.3	17.0	22.7	0.3	36.7	14	11.7	13	4	0	16.7	72	151	58	81	11	12	0	0	1.7	29	13.4	23	15	13	9	9	4.9	
IOWA																																
BURLINGTON	211			30.6	18.0	24.4	0.3	36.7	14	10.0	17	10	0	17.8	67	126	31	83	6	4	0	0	0.6	24	14.3	34	20	11	12	8	4.6	
DES MOINES	286	981.4	1015.5	30.6	19.6	25.1	1.2	36.1	9	12.8	17	10	0	16.1	61	47	+36	25	7	8	0	0	1.0	19	13.9	NW	14	10	10	11	5.4	75
DUBUQUE	322	977.3		29.2	16.6	22.9	0.9	35.0	10	8.9	17	5	0			50	-59	17	8		0	0										
SIOUX CITY	334	975.6	1014.5	31.2	18.0	24.6	0.6	38.9	9	10.0	16	12	0	16.7	65	38	-46	24	6	6	0	0	1.8	14	17.0	NW	15	10	13	8	5.2	77
WATERLOO	265	984.4	1015.5	30.3	14.2	23.2	0.7	37.2	9	8.9	17	9	0	15.0	62	72	-49	59	6	6	0	0	0.7	20	14.3	34	30	12	10	9	5.0	
KANSAS																																
CONCORDIA	448	962.4	1014.1	33.3	19.6	26.4	0.9	40.6	30	12.8	5	20	0	16.1	58	29	-55	18	4	8	0	0	3.3	16	13.0	S	18+	12	11	8	4.9	89
DODGE CITY	787	925.5	1013.6	34.6	19.2	26.9	0.7	38.9	31+	16.1	16+	25	0	15.0	54	13	-65	7	5	8	0	0	4.2	18	18.3	NE	17	16	7	8	4.2	83
GOODLAND	1114	888.9	1012.6	32.3	16.8	24.6	0.2	37.8	30	12.8	16	16	0	13.9	57	66	-3	25	7	7	0	0	3.4	16	14.3	S	3	16	10	5	4.0	
TOPEKA	267	984.1	1015.3	32.0	19.1	25.6	-0.1	37.8	30	11.7	6+	21	0	19.4	71	52	-55	33	4	4	0	0	2.0	18	11.6	NE	15	15	8	8	4.3	90
WICHITA	403	968.5	1015.3	32.4	19.2	25.8	-1.3	38.3	31+	15.6	6	18	0	16.7	60	156	45	75	5	6	0	0	3.8	16	11.6	NW	15+	17	9	5	3.9	83
KENTUCKY																																
COVINGTON	265	985.1	1016.1	29.2	17.1	23.1	-1.1	34.4	23+	10.6	17	5	0	18.3	75	59	-45	20	11	9	0	0	1.7	26	10.7	32	15	8	14	9	5.6	
LEXINGTON	294	981.7	1016.7	28.6	16.9	22.8	-1.8	33.3	24+	11.7	17	3	0	17.2	74	171	49	76	10	7	0	0	1.3	22	12.5	W	16	8	18	5	5.4	
LOUISVILLE	145	998.6	1015.9	30.6	19.1	24.9	-0.1	35.6	24+	13.9	18	9	0	18.9	72	53	-42	18	8	8	0	0	1.2	24	14.3	NE	24	6	18	7	5.7	77
LOUISIANA																																
ALEXANDRIA	28	1013.9	1016.1	33.8	21.0	27.4	0.3	37.2	25	18.3	19	23	0	21.7	77	92	-36	53	10	11	0	0	0.3	25	10.3	L	18	5	14	12	6.3	
BATON ROUGE	20	1015.6	1018.4	32.2	22.3	27.3	-0.5	34.4	31+	20.0	19+	21	0	22.2	79	194	+8	54	17	14	0	0	0.8	27	9.4	E	25	3	18	10	6.5	
LAKE CHARLES	3	1016.9	1018.1	31.8	22.2	27.0	-1.0	34.4	31	19.4	19	18	0	22.8	82	69	-97	27	9	14	0	0	0.9	15	9.8	E	17	8	6	17	6.8	
NEW ORLEANS	1	1016.9	1017.9	32.2	22.4	27.3	-0.4	34.4	31+	21.1	22+	20	0	22.8	80	144	-27	26	16	16	0	0	0.8	25	12.5	SE	29+	2	13	16	7.4	67
SHREVEPORT	77	1006.5	1017.7	31.4	20.3	25.9	-2.6	33.9	31+	17.2	7	14	0	22.2	84	88	15	23	12	12	0	0	1.4	21	8.9	13	26	8	11	12	6.1	52
MAINE																																
CARIBOU	190	987.8		23.2	12.0	17.6	-0.7	32.8	6	6.1	26	1	0			171	70	49	15		0						3	12	16	7.2	
PORTLAND	13	1009.5	1011.9	24.8	12.8	18.8	-1.2	32.8	20	7.2	26+	1	0	13.9	78	190	124	61	14	7	0	0	1.1	23	8.5	SW	8	6	12	13	6.4	64
MARYLAND																																
BALTIMORE	45	1009.1	1014.7	29.6	18.2	23.9	-0.9	33.3	28	12.8	26	6	0	17.8	72	141	38	44	11	11	0	0	1.8	27	16.1	NW	11	9	11	11	5.9	62
MASSACHUSETTS																																
BLUE HILL OBS R	192			26.3	15.9	21.1	-0.6	32.2	20	11.1	26	1	0			115	40	47	12		0	0			33.9	SSW	16					62
BOSTON	5	1011.5	1012.6	27.1	18.3	22.7	-0.2	33.9	20	14.4	26+	3	0	16.1	69	109	40	59	12	5	0	0	1.5	25	11.6	W	3	8	12	11	5.7	69
WORCESTER	301	976.6		24.9	14.9	19.9	-1.3	29.4	20+	10.6	25	0	0	14.4	75	83	-9	41	15	7	0	0	1.8	26	8.2	30	24+	4	15	12	6.5	
MICHIGAN																																
ALPENA	210	989.2	1014.1	26.6	12.8	19.7	1.1	33.3	10	7.2	25	2	0	15.0	76	92	-12	13	9	7	0	0	1.4	29	14.3	NE	9	10	15	6	4.8	73
DETROIT	189			29.2	18.4	23.9	1.0	36.1	14	15.0	13+	6	0	15.6	61								1.5	29	9.4	1	31+					
DETROIT METRO	193	990.5	1014.1	29.8	15.4	22.6	0.2	37.2	14	8.9	13	6	0	16.1	70	37	-41	18	13	5	0	0	2.7	28	12.5	NW	11+	6	11	4	5.1	64
FLINT	235	986.8	1014.1	27.9	15.4	21.7	0.8	34.4	14	10.0	13	3	0	15.0	67	50	-26	15	10	8	0	0	1.4	28	9.8	31	11+	8	10	7	5.5	
GRAND RAPIDS	238	986.1	1014.7	29.7	15.2	22.5	0.6	34.4	14	8.3	13	8	0	15.0	65	21	-58	13	9	6	0	0	1.7	26	13.4	W	14	12	14	5	4.6	69
HOUGHTON LAKE	350	973.2	1014.6	26.7	12.2	19.4	0.4	32.2	14+	8.3	18	2	0	13.3	69	31	-47	15	8	9	0	0	1.2	30	7.6	22	24	11	14	14	5.2	
LANSING	256	983.4	1014.4	28.3	14.9	21.6	0.0	35.0	14	7.2	13	4	0	16.7	73	65	-7	48	8	5	0	0	1.4	28	12.2	NW	11	8	16	5	5.3	79
MARQUETTE	206			24.1	14.2	19.2	0.1	32.8	6	8.9	25	1	0			39	-39	24	7		0	0			11.6	SW	26+					78
MUSKEGON	191	991.9	1014.6	27.4	14.8	21.1	0.0	32.8	14	10.6	13+	1	0	15.0	71	30	-34	9	8	6	0	0	1.7	25	10.7	20	10	15	8	9	4.8	
SAULT STE MARIE	220	987.5	1013.8	25.0	9.8	17.4	-0.3	32.2	6	5.0	17	1	0	12.8	75	31	-35	10	8	5	0	0	1.9	30	12.2	NW	12	10	12	9	5.1	68
MINNESOTA																																
DULUTH	435	964.8	1015.5	25.6	12.3	18.9	0.3	30.0	19+	7.8	2+	0	0	12.2	66	66	-29	34	9	7	0	0	2.3	29	11.6	NW	22	10	16	5	5.0	75
INTERNATIONAL FALLS	359	971.9	1014.6	26.2	11.4	18.9	0.1	31.1	19	7.2	12	0	0	12.8	71	145	44	49	10	7	0	0	1.9	26	17.9	33	19	13	10	8	6.0	
MINNEAPOLIS	254	985.1	1014.9	31.2	17.8	24.5	2.3	37.8	13	11.1	17	11	0	13.3	51	62	-31	15	8	7	0	0	1.4	28	13.4	NW	15	10	16	5	4.7	87
ROCHESTER	395	968.5	1015.3	31.1	15.3	23.2	2.1	36.7	10	8.9	1	8	0	13.9	60	50	-45	15	10	5	0	0	1.2	23	17.4	E	30	10	14	7	5.3	
ST CLOUD	318	978.7	1015.5	29.8	13.2	21.5	0.3	36.7	13+	7.2	17	7	0			49	-33	15	9		0	0						14	14	3	4.4	
MISSISSIPPI																																
JACKSON	94	1006.1	1017.7	32.6	21.6	27.1	-0.5	35.6	25+	18.3	19	22	0	22.2	80	124	19	42	8	11	0	0	1.3	29	11.6	NE	15	6	16	7	5.1	63

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State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No of days (sunrise to sunset): Clear 0-3	No of days (sunrise to sunset): Partly cloudy, 4-7	No of days (sunrise to sunset): Cloudy 8-10	Sky cover, tenths (sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
MISSISSIPPI																																
MERIDIAN	88	1007.1	1018.0	32.1	18.8	25.5	-1.8	35.6	27+	15.6	19	20	0	20.0	79	78	-52	39	8	10	0	0	0.7	25	7.6	30	30	4	20	7	5.6	
MISSOURI																																
COLUMBIA REGIONAL	270	984.8	1016.5	32.2	18.8	25.5	0.3	36.7	26	11.7	17	21	0	17.2	63	6	-93	6	5	4	0	0	1.6	23	10.3	W	15	12	13	6	4.6	72
KANSAS CITY	309	979.3	1015.4	32.2	20.0	26.1	0.1	38.3	30	13.9	1	21	0	18.3	67	20	-91	9	4	3	0	0	1.9	19	8.5	SE	9	14	8	9	4.3	86
ST JOSEPH	247			31.9	19.3	25.6	-0.1	36.1	26	12.2	1	19	0			10	-87	5	4		0	0										
ST LOUIS	163	996.6	1016.5	32.7	20.1	26.4	0.5	37.2	23+	13.9	18+	20	0	18.9	67	58	-36	17	6	6	0	0	1.6	24	13.9	NW	28	14	12	5	4.3	82
SPRINGFIELD	386	972.6	1017.0	30.9	18.6	24.8	-0.7	36.1	25	11.1	17+	14	0	18.3	70	116	24	78	6	6	0	0	1.5	21	8.0	SW	15	21	7	3	3.3	80
MONTANA																																
BILLINGS	1087	891.6	1012.6	32.0	14.3	23.2	1.1	40.0	24	10.6	28+	15	0	7.8	41	2	-20	1	2	4	0	0	6.4	31	15.6	NW	12	17	9	5	3.7	82
GLASGOW	696	932.6	1013.0	28.3	14.2	21.3	-0.1	35.6	24	8.9	28+	4	0	12.2	60	127	91	64	13	11	0	0	1.5	9	20.6	S	1	10	9	6	4.2	
GREAT FALLS	1116	888.9	1013.4	29.5	13.1	21.3	0.6	35.6	23	8.3	28+	7	0	8.3	48	53	20	34	6	9	0	0	1.1	24	21.5	SE	11	10	11	10	5.1	76
HAVRE	788	922.1		31.1	13.1	22.1	1.0	37.8	26	6.1	28	14	0			31	-4	12	7	7	0	0	0.5	22	17.9	NW	7	13	7	11	5.0	88
HELENA	1167	881.8	1014.4	28.9	10.6	19.8	-0.2	34.4	23	6.7	28+	4	0	6.1	45	7	-17	3	6	6	0	0	0.8	30	16.1	W	24	14	11	6	4.2	74
KALISPELL	904	912.0	1015.2	26.8	9.4	18.1	0.2	32.2	26+	1.7	2	2	0	8.9	57	42	15	21	11	9	0	0	0.2	23	11.6	15	24+	9	12	10	5.4	
MILES CITY	801	921.1	1011.7	32.8	16.5	24.7	1.1	42.2	24	9.4	15	18	0	11.7	48	28	-11		7	10	0		1.1	7								
MISSOULA	972	904.8	1014.8	28.7	9.9	19.3	0.1	34.4	23+	4.4	2	4	0	8.3	54	30	7	15	9	5	0	0	1.1	31	16.1	N	29	14	9	8	4.3	74
NEBRASKA																																
GRAND ISLAND	561	949.5	1014.1	31.7	18.6	25.2	0.6	38.3	9	10.6	16	17	0	16.1	61	28	-48	11	9	9	0	0	2.5	16	12.5	19	19	12	9	10	4.7	
LINCOLN	359	972.9	1014.4	32.2	19.0	25.6	0.4	39.4	9	10.6	5	17	0	17.2	62	76	-8	28	8	10	0	0	2.0	16	14.8	NW	29	9	10	12	5.5	72
NORFOLK	471	959.4	1013.8	31.7	18.5	25.1	0.9	38.3	9	11.1	16	16	0	15.6	59	31	-50	9	9	8	0	0	2.3	18	14.3	21	9	11	12	8	4.8	
NORTH PLATTE	846	918.1	1013.7	30.3	15.0	22.7	-0.8	36.1	29	7.8	16	13	0	14.4	66	23	-52	6	12	8	0	0	2.4	13	14.3	NW	15+	9	14	8	5.3	73
OMAHA	298	980.0	1014.5	32.7	19.4	26.1	1.0	39.4	9	11.1	5	17	0	18.3	65	39	-56	23	6	6	0	0	1.8	16	15.2	N	15	8	10	13	5.7	59
SCOTTSBLUFF	1206	880.1	1012.3	33.4	15.8	24.7	1.5	40.6	8	11.7	3	23	0	12.8	54	6	-38	3	8	11	0	0	1.8	10	13.0	2	15	14	10	7	4.7	
VALENTINE	789			31.4	16.7	24.1	0.7	41.1	9	7.2	16	13	0			54	-10	43	11		0	0			15.6	S	12	15	11	5	4.4	76
NEVADA																																
ELKO	1539	845.6	1012.6	31.9	9.6	20.8	-0.1	36.1	10+	2.8	2	18	0	2.2	34	11	1	6	6	2	0	0	0.8	24	11.2	27	9					
ELY	1906	811.0	1011.8	29.9	9.1	19.5	-0.1	35.0	10+	2.2	2+	12	0	3.3	41	40	24	13	12	12	0	0	2.4	21	17.0	S	16	13	11	7	4.5	72
LAS VEGAS	659	934.6	1009.0	38.2	22.8	30.5	-1.5	41.7	9+	17.2	3	30	0	5.6	26	50	38	32	8	8	0	0	2.4	21	28.6	NE	29	16	11	4	3.6	90
RENO	1342	866.6	1013.1	32.5	8.6	20.6	-0.2	36.7	27+	0.6	1	22	0	5.0	41	24	18	8	4	5	0	0	1.4	26	13.9	S	15	20	4	7	3.2	90
WINNEMUCCA	1311	868.3	1011.9	35.0	11.4	23.2	1.6	39.4	15	1.7	2	25	0	2.2	30	9	3	5	4	2	0	0	1.2	26	13.0	W	11	20	5	6	3.3	87
NEW HAMPSHIRE																																
CONCORD	104	1000.0	1012.4	26.3	12.3	19.3	-1.6	32.2	20+	3.9	26	2	0	15.0	77	81	2	42	13	3	0	0	0.5	33	8.9	NW	25	4	15	12	6.4	63
MT WASHINGTON OBS	1909			11.4	5.3	8.4	-0.9	18.3	6	-1.7	25	0	1			160	-12	54	19	2	0	0			34.4Y	W	24	2	4	25	8.5	28
NEW JERSEY																																
ATLANTIC CITY	20	1011.9	1014.2	28.4	16.6	22.5	-1.4	33.3	21	9.4	26	3	0	16.1	70	57	-54	27	9	6	0	0	1.8	24	10.7	21	28	5	12	14	6.7	60
ATLANTIC CITY U	3			25.7	18.6	22.1	-1.4	30.0	24	13.9	26	0	0			44	-60	16	9						10.7	WNW	12+					
NEWARK	2	1012.2	1013.7	28.4	19.3	23.8	-0.8	32.8	20	15.6	26+	2	0	15.0	62	99	-3	24	12	4	0	0	1.8	26	10.3	33	12	4	16	11	6.5	
TRENTON U	17			28.4	18.4	23.4	-0.9	33.3	28	13.3	26	1	0			51	-70	13	11		0	0			11.2	NW	14+	6	15	10	6.1	55
NEW MEXICO																																
ALBUQUERQUE	1619	839.8	1011.9	32.3	17.7	25.0	-0.9	35.6	10+	15.0	7	21	0	10.6	47	34	-2	7	12	11	0	0	1.3	13	19.2	E	15	14	12	5	4.4	75
CLAYTON	1515			29.8	15.3	22.6	-0.5	34.4	2	9.4	4	3	0			97	27	51	11		0	0										
ROSWELL	1112	891.0	1012.3	32.3	19.5	25.9	-0.3	35.6	3	16.7	25	20	0	15.6	57	62	19	23	9	10	0	0	2.6	14	16.5	E	4	7	19	5	5.3	91
NEW YORK																																
ALBANY	84	1002.7	1013.1	26.4	14.1	20.3	-1.9	31.7	20+	7.8	26	0	0	15.6	77	66	-13	15	11	5	0	0	1.0	24	13.4	NW	12	5	9	17	6.9	56
BINGHAMTON	485	956.7	1014.8	23.2	14.3	18.7	-1.9	27.2	20+	8.9	26	0	0	13.9	76	163	65	82	15	6	0	0	2.1	26	13.0	N	11	5	13	13	6.7	53
BUFFALO	215	988.5	1013.7	24.3	15.4	19.9	-1.3	28.9	6+	10.0	25	0	0	15.0	75	144	69	47	17	8	0	0	2.1	24	13.0	SW	1	6	4	21	7.4	49
NEW YORK U	40	1010.5	1013.7	28.5	19.1	23.8	-1.0	32.2	28+	14.4	26	2	0	16.1	66	36	-57	20	10	3	0	0	0.8	28	7.6	NW	12					59
NEW YORK KENNEDY	4	1012.9	1013.5	26.7	18.7	22.7	-1.2	32.2	24	14.4	26	1	0	16.7	73	89	-14	39	12	3	0	0	1.9	24	11.2	30	12	6	16	9	5.8	
NEW YORK LA GUARDIA	3	1012.5	1013.4	28.4	20.3	24.3	-0.5	32.2	28	16.7	26	1	0	15.6	61	25	-72	15	7	3	0	0	1.7	26	11.2	NW	13+	5	16	10	6.0	
ROCHESTER	167	993.9	1013.6	25.9	15.3	20.7	-1.1	31.1	11+	9.4	25	0	0	14.4	68	131	57	44	13	7	0	0	2.2	27	13.0	SW	2	7	6	18	6.8	48
SYRACUSE	125	998.3	1013.1	24.3	14.3	19.3	-2.7	30.0	11+	7.2	25	0	0	16.1	82	133	55	37	16	7	0	0	1.6	26	14.8	NW	11	7	6	18	7.0	45
NORTH CAROLINA																																
ASHEVILLE	652	942.8	1017.7	27.8	15.7	21.8	-1.3	32.2	24+	10.6	8	2	0	16.7	78	81	-43	41	8	6	0	0	1.4	35	13.0	29	30	6	16	9	5.6	56

CLIMATOLOGICAL DATA

METRIC UNITS

JULY 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear 0-3	No. of days (sunrise to sunset): Partly cloudy 4-7	No. of days (sunrise to sunset): Cloudy 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
NORTH CAROLINA																																
CAPE HATTERAS R	2	1015.6	1016.1	29.1	21.7	25.4	-0.2	32.2	16+	16.7	27+	2	0	21.7	80	109	-40	31	14	13	0	0	21.1	24	9.4	25	11	2	14	15	7.0	38
CHARLOTTE	224	989.5	1016.2	30.3	19.5	24.9	-0.9	35.0	24	16.7	8+	12	0	18.9	71	57	-59	39	8	8	0	0	16.8	26	20.1	NW	15	4	18	9	6.2	63
GREENSBORO	273	985.1	1016.1	30.1	18.7	24.4	-0.7	35.6	24	13.9	14+	11	0	18.3	73	47	-64	13	8	6	0	0	14.1	26	26.8	NW	15	4	14	13	6.6	65
RALEIGH	132	1000.0	1015.5	32.4	19.4	25.9	0.6	37.8	24	14.4	5	17	0	18.3	69	25	-104	11	7	5	0	0	14.1	24	31.2	27	15	3	18	10	6.4	58
WILMINGTON	9	1014.9	1016.4	32.6	22.6	27.6	0.7	37.2	15	20.0	4	18	0	22.8	79	210	+2	65	12	16	0	0	21.0	23	11.6	N	10+	3	11	17	7.2	60
NORTH DAKOTA																																
BISMARCK	502	955.3	1014.0	31.1	12.5	21.8	0.2	40.6	24	3.3	16	11	0	11.1	54	12	-44	5	8	11	0	0	9.4	13	13.4	NW	13+	12	14	5	4.3	76
FARGO	273	982.1	1014.1	29.8	14.4	22.1	0.6	37.8	25	6.1	16	9	0	11.7	55	16	-64	8	6	5	0	0	8.6	13	13.4	S	29	12	13	6	4.8	78
WILLISTON	579	946.5	1013.6	29.2	13.5	21.4	0.2	36.7	24	4.4	16	8	0	11.1	56	12	-39	5	8	7	0	0	8.3	9	17.9	NW	21	11	12	8	4.8	70
OHIO																																
AKRON	368	971.6	1015.5	25.9	14.4	20.2	-1.8	31.1	15+	8.9	13	0	0	15.6	76	229	132	74	15	12	0	0	11.7	26	14.3	E	11+	8	9	14	6.2	
CINCINNATI ABBE OB	232			29.7	17.5	23.6	-0.9	35.0	23	12.8	17+	7	0			67	-34	38	6						11.6	W	15					51
CLEVELAND	237	986.5	1015.2	27.6	16.4	22.0	0.1	33.3	11	10.6	13	3	0	16.7	74	88	1	41	13	9	0	0	11.8	28	12.5	SW	15	7	11	13	6.2	
COLUMBUS	247	986.1	1015.8	28.1	16.3	22.2	-0.9	34.4	15	11.7	18+	4	0	16.7	74	130	23	61	12	11	0	0	11.3	25	22.8	W	15	5	19	7	6.1	53
DAYTON	303	980.0	1015.6	29.3	16.4	22.8	-0.8	34.4	23+	10.6	17+	4	0	16.7	71	24	-64	8	8	8	0	0	9.0	26	17.0	W	15	8	17	6	5.5	71
MANSFIELD	395			26.4	14.9	20.7	-2.4	31.7	15+	9.4	13	0	0	16.1	77	65	-29	3	12	11	0	0	8.3	26	13.9	33	16	6	15	10	6.0	
TOLEDO	204	990.2	1014.9	29.3	15.3	22.3	-0.1	36.7	14	8.9	3	4	0	15.6	68	52	-29	2	13	7	0	0	11.8	28	13.9	W	24+	9	15	7	5.1	67
YOUNGSTOWN	359	973.2	1015.2	26.2	14.8	20.4	-1.1	31.1	11	10.6	25+	0	0	15.6	76	182	83	93	15	8	0	0	11.4	26	12.1	25	31	8	9	14	6.3	
OKLAHOMA																																
OKLAHOMA CITY	392	970.9	1015.2	33.2	19.9	26.6	-0.9	37.8	31	15.6	6	21	0	17.8	63	35	-33	25	4	5	0	0	9.4	17	11.6	NE	15	17	8	6	4.7	57
TULSA	191	992.2	1015.4	33.7	21.2	27.4	-0.4	38.9	25	16.1	17+	22	0	19.4	65	111	22	44	6	6	0	0	10.9	24	12.5	S	14	20	6	5	3.8	76
OREGON																																
ASTORIA	2	1017.6	1018.3	20.6	11.7	16.2	0.6	26.1	15	7.8	28+	0	0	10.6	72	62	38	45	9		0	0	7.8	27	9.8	29	28+	6	16	15	4.6	
BURNS	1265			28.7	12.1	20.4	0.2	33.9	26+	0.6	1	4	0			14	6	4	6		0	0			19.7	W	21	15	8	8	4.3	
EUGENE	109	1003.1	1016.6	29.2	10.4	19.8	0.4	35.6	15	5.0	2	7	0	10.6	61	11	4	5	3	1	0	0	7.3	33	8.9	1	27	11	11	10	5.1	
MEDFORD	396	967.8	1014.7	31.4	12.4	21.9	-0.1	37.8	15	3.3	1	13	0	9.4	51	21	15	12	2	0	0	0	11.9	31	7.6	30	28+	19	4	8	3.5	
PENDLETON	452	961.7	1014.3	31.3	14.7	23.0	-0.1	38.3	25+	8.3	13+	13	0	7.2	38	4	-3	4	2	0	0	0	11.9	32	11.2	33	12	16	4	9	4.7	
PORTLAND	6	1015.5	1016.7	25.8	13.2	19.6	0.1	33.3	15	7.8	2	1	0	10.6	61	17	5	12	6	0	0	0	9.1	33	8.9	W	27	12	6	13	5.1	77
SALEM	60	1009.1	1015.4	26.7	10.2	18.5	-0.7	33.9	28	3.9	2	4	0	11.1	65	17	8	9	4	0	0	0	8.7	30	8.0	3	27	14	7	10	4.5	
SNAKE, SUMMIT	1159	885.5	1014.9	23.9	11.7	17.8	0.2	30.6	15	3.3	1	0	0			34	25	21	5		0	0	2.1	36	17.7	1	25+					
PUBLIC AREA																																
CAPE ARGUELLO R	110			29.9	22.8	26.3	0.0	31.1	9+	20.6	10	0	0			340	96	61	28		1	0			10.3	NE	13	1	8	22	8.7	54
JOHNSTON	2	1013.5	1014.1	26.1	24.3	26.2	-0.9	28.9	27+	22.2	27	0	0	21.7	76	9	+18	6	10	0	0	0	9.0	9	14.5	E	16	14	11	16	8.1	69
KRAUS R	29	1005.8		30.6	24.9	27.8	0.5	32.2	12+	23.3	31+	3	0			285	+206	48	17		1	0	11.2	05	18.7	SW	16	0	8	23	8.7	43
MARSHALLIN	7	1008.8		30.1	25.1	27.6	-0.3	31.1	27	23.3	29+	0	0			223	+23	52	14	1	0	0	9.8	9	13.4	S	17	1	5	25	8.2	
MILORD	3	1009.5		29.4	23.8	26.7	-0.6	30.6	24+	22.2	16	0	0			426	80	54	24		0	0	11.2	E	16+			1	1	28	9.0	59
PT. LOMA	4	1011.9	1013.1	22.3	23.4	25.8	0.1	30.6	17	20.0	11	0	0	22.8	82	249	45	46	27	7	0	0	6.4	18	11.6	NE	28+	1	11	19	7.8	31
POINT REYES R	37			21.0	22.6	26.8	0.2	32.2	30+	21.7	29+	7	0			331	-121	91	27	1	0	0			5.8	NW	2	1	6	23	8.7	39
TWO MOON ISLAND	2	1008.8		30.4	24.3	27.4	0.3	32.2	10	22.8	16+	1	0			293	-98	53	22	1	0	0	11.3	35	14.8	SW	12	1	3	27	9.1	48
WADE	3	1013.3	1013.7	31.3	24.7	28.0	0.2	32.2	12+	22.8	21+	4	0	23.3	78	81	-32	26	21	1	0	0	6.8	11	14.5	NE	9	8	16	7	8.4	45
WARM	13	1007.1		29.9	22.8	26.4	-0.9	31.1	12+	21.1	30+	0	0			290	-82	50	12	2	0	0	11.3	36	12.5	SW	14+	3	7	21	8.5	50
PENNSYLVANIA																																
ALLENTOWN	114	1008.3	1014.	27.6	16.4	22.0	-1.4	34.2	28+	8.9	26	2	0	15.6	76	54	-57	21	9	7	0	0	11.4	29	9.8	SW	12	8	16	11	4.7	
ERIE	223	988.5	1014.4	23.7	14.5	19.1	-1.3	27.2	28+	9.4	25	0	0	16.1	84	110	21	34	13	8	0	0	11.7	34	11.6	S	14	2	14	14	6.2	
HARRISBURG	103	1002.7	1014.2	27.5	17.3	22.4	-2.1	32.2	20	11.7	26	1	0			140	46	42	10	7	0	0	11.8	28	11.7	N	1	8	11	12	6.2	65
PHILADELPHIA	2	1013.2	1014.1	29.0	19.1	24.1	-0.8	33.8	28	13.4	26+	2	0	16.7	67	103	-1	35	10	6	0	0	11.8	27	13.4	NW	12	5	8	18	6.4	61
PITTSBURGH	367	972.6	1015.6	26.8	14.4	19.7	-2.5	31.1	15	10.6	13	0	0			120	22	32	13	8	0	0	11.6	27	12.1	SW	15	6	13	12	5.4	54
SCRANTON	283	980.4	1014.	25.4	15.9	20.7	-1.7	30.0	20	8.3	26	0	0	15.0	70	81	-23	31	11	5	0	0	11.4	25	8.9	SW	30	3	15	12	4.7	51
WILLIAMSPORT	160	995.6	1014.3	26.6	16.2	21.4	-1.3	31.1	20	9.4	26+	0	0	16.1	76	122	15	31	12	8	1	0	11.3	29	9.8	W	4	4	11	17	7.1	
RHODE ISLAND																																
BLOCK ISLAND	36			24.2	16.7	20.4	-0.4	28.3	24	13.3	26	0	0			45	-24	20	9		0	0										
PROVIDENCE	54	1010.5	1010.9	26.2	16.1	21.1	-1.2	30.9	6	10.6	26	1	0	15.6	72	205	133	103	11	7	0	0	11.7	28	9.4	NE	30+	8	14	9	6.0	44
SOUTH CAROLINA																																
CHARLESTON	12	1015.2	1017.	32.1	22.4	27.2	0.4	35.[illegible]	25+	19.4	6+	16	0	21.7	76	114	-95	72	8	9	1	0	9.3	32	11.3	SW	4	2	13	16	8.4	62

CLIMATOLOGICAL DATA

METRIC UNITS

JULY 1976

State and Station	Elevation (ground)	Pressure: Station O	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days Max 32.2 °C or above	Temperature: No of days Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days 25 mm or more	Precipitation: No of days With thunderstorms	Precipitation: Snow, ice pellets Total	Precipitation: Snow, ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No. of days (sunrise to sunset) Clear, 0.3	No. of days (sunrise to sunset) Partly cloudy, 4-7	No. of days (sunrise to sunset) Cloudy, 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	°C	°C	°C	°C	°C		°C				°C	%	mm	mm	mm			mm	mm	m/s		m/s							%
SOUTH CAROLINA																																
CHARLESTON J	3			32.1	23.6	27.9	0.4	35.6	25+	20.6	6	16	0			114	-79	35	9		0	0										
COLUMBIA	65	1008.5	1016.5	32.2	20.7	26.4	-0.9	37.8	15	17.2	14+	19	0	20.0	72	164	23	96	10	7	0	0	0.9	24	10.3	19	9	6	13	12	6.3	62
GRNVLLE-SPRTNBRG	292	982.4	1016.3	31.1	19.1	25.1	-0.6	36.1	24+	14.4	14	14	0	17.8	68	146	40	91	10	6	0	0	0.6	28	11.6	S	29	5	16	10	5.8	67
SOUTH DAKOTA																																
ABERDEEN	395	967.5	1013.5	30.6	15.2	23.9	1.8	40.0	25	5.6	16	17	0	11.7	50	13	-57	5	5	5	0	0	0.9	8	12.5	27	25	12	11	8	4.6	
HURON	390	967.5	1012.9	32.3	15.1	23.7	0.6	39.4	25	5.6	16	16	0	12.8	54	52	-5	19	8	9	0	0	1.2	13	19.2	SW	6	15	12	4	4.0	85
RAPID CITY	964	905.5	1013.9	30.2	15.1	22.7	0.1	38.3	12	10.0	16+	11	0	13.3	59	27	-27	11	4	10	0	0	0.7	12	17.9	W	12	11	12	8	4.7	75
SIOUX FALLS	432	964.4	1014.5	32.7	16.9	24.8	1.9	41.1	9	9.4	16	18	0	13.3	51	39	-36	17	5	5	0	0	1.4	15	13.4	29	15	10	19	2	4.4	
TENNESSEE																																
BRISTOL	459	964.1	1017.4	28.7	17.1	22.9	-1.1	33.3	24	12.2	18	2	0	17.8	77	54	-72	19	10	6	0	0	1.0	26	11.2	30	15	4	15	12	6.4	
CHATTANOOGA	203	992.9	1017.0	29.9	18.7	24.3	-1.7	33.3	24	13.3	2	11	0	20.0	80	141	11	62	7	11	0	0	0.2	32	10.3	34	27	9	12	10	5.5	63
KNOXVILLE	299	982.7	1017.3	30.2	18.9	24.6	-1.1	33.9	26+	14.4	18+	10	0	20.0	79	95	-24	39	11	8	0	0	0.9	28	11.2	35	12	6	20	5	5.3	78
MEMPHIS	79	1007.1	1017.1	32.8	22.2	27.5	-0.1	36.1	26+	17.8	19+	21	0	18.9	62	97	7	29	8	7	0	0	1.3	23	15.6	31	29	16	9	6	4.3	90
NASHVILLE	180	995.6	1017.0	30.7	18.7	24.7	-1.8	35.6	24	12.8	2	13	0	19.4	78	102	5	46	10	7	0	0	0.9	28	8.0	32	27+	11	11	9	5.2	74
OAK RIDGE R	276			29.3	16.7	23.1	-1.9	33.9	24	10.6	2	8	0			102	-42	33	14		0	0			17.9		9	7	15	9	5.6	
TEXAS																																
ABILENE	544	953.6	1015.3	30.8	20.0	25.4	-3.4	35.6	2+	17.8	26+	11	0	18.3	69	108	49	44	12	4	0	0	4.1	16	17.9	S	12	9	8	14	5.9	61
AMARILLO	1098	893.3	1013.9	30.4	17.1	23.8	-2.2	35.0	31	13.9	8+	12	0	15.0	61	45	-30	21	8	7	0	0	5.2	19	17.9	S	15	11	10	10	5.2	74
AUSTIN	182	994.9	1016.5	31.1	22.4	26.8	-2.4	34.4	30	21.1	21+	16	0	21.1	77	120	72	45	14	5	0	0	2.5	17	14.8	E	21	9	6	16	6.5	49
BROWNSVILLE	6	1015.2	1015.7	31.1	23.6	27.4	-1.7	33.9	2	21.1	25+	11	0	22.2	78	240	209	108	11	6	0	0	4.3	14	13.0	SE	19	4	10	17	7.2	66
CORPUS CHRISTI	12	1014.6	1016.3	31.3	23.3	27.3	-2.0	33.3	31+	21.1	25+	16	0	23.3	81	303	255	115	12	1	0	0	3.8	13	12.1	SE	3	4	13	14	6.9	53
DALLAS - FORT WORTH	168	995.6	1016.3	33.2	22.4	27.8	-1.5	37.2	31	18.3	7	24	0	20.6	70	97	51	23	10	8	0	0	2.2	18	13.0	20	15	11	9	11	5.7	
DEL RIO	313	978.7	1014.2	30.0	21.1	25.6	-4.8	35.0	2+	17.8	17	7	0	21.1	79	335	309	90	17	8	0	0	4.3	12	13.0	15	11	2	10	19	7.8	
EL PASO	1194	882.5	1011.2	32.6	18.7	25.7	-2.3	37.2	3	16.1	24+	20	0	15.0	58	81	42	38	10	15	0	0	1.5	13	15.6	33	11	6	16	9	5.6	74
GALVESTON	2			29.7	25.2	27.4	-1.0	31.7	26+	21.7	5	0	0			143	31	88	9		0	0			11.2	S	2					63
HOUSTON INTERCON	29	1013.9	1017.4	32.2	21.7	26.9	-1.6	35.0	31	20.6	25+	20	0	21.7	78	100	-5	30	10	11	0	0	1.5	13	10.3	15	8	6	9	16	7.1	46
LUBBOCK	992	905.5	1014.5	28.9	18.8	23.9	-2.6	35.0	2+	17.2	24+	4	0	16.7	70	183	126	50	12	9	0	0	3.7	15	15.6	S	4	10	13	8	5.2	68
MIDLAND	869	917.4	1013.8	29.8	18.8	24.3	-3.6	35.0	2	16.7	25	8	0	16.1	65	90	44	38	11	10	0	0	3.8	13	14.3	1	4	6	13	12	5.9	
PORT ARTHUR	5	1017.3		32.3	22.3	27.3	-1.0	34.4	31+	21.1	25+	22	0	23.9	87	101	-48	53	12	14	0	0	1.3	17	14.8	N	24	3	10	18	7.2	59
SAN ANGELO	580	949.5	1014.9	29.2	19.9	24.6	-4.7	34.4	28	17.2	6	7	0	18.9	75	89	58	20	15	6	0	0	3.1	13	14.3	9	23	8	9	14	6.6	
SAN ANTONIO	240	988.8	1016.3	30.3	22.8	26.6	-2.7	33.3	31+	20.0	24	11	0	21.1	75	137	94	44	12	4	0	0	3.3	15	10.3	SE	13	2	13	16	7.4	43
VICTORIA	32	1012.9	1016.9	31.6	22.8	27.2	-1.9	34.4	31+	20.6	7	17	0	22.8	82	146	75	44	13	7	0	0	2.8	14	18.3Y	E	23	6	8	17	7.1	
WACO	153	998.6	1016.4	32.5	23.2	27.9	-1.9	37.2	31	21.1	7	20	0	22.2	75	188	151	92	11	8	0	0	3.1	15	17.0	13	15	8	6	17	6.6	
WICHITA FALLS	303	979.7	1015.5	34.1	20.3	27.2	-2.7	38.9	28	17.8	7	24	0	18.9	66	101	46	32	8	6	0	0	3.8	16	15.6	16	10	11	9	11	5.1	
UTAH																																
MILFORD	1533	846.9	1011.7	33.8	13.6	23.7	0.2	38.9	10	7.2	3+	24	0			27	14	10	8		0	0			16.5	SW	29	15	11	5	4.2	71
SALT LAKE CITY	1286	871.0	1010.8	34.4	17.4	25.9	1.1	39.4	11	12.8	2	22	0	7.8	36	39	22	20	4	6	0	0	0.8	17	19.2	S	31+	15	10	6	3.9	
WENDOVER	1291	870.0	1011.5	33.6	21.0	27.3	1.1	38.9	7	17.2	3+	21	0	2.8	24	9	3	5	5		0	0	0.7	5								
VERMONT																																
BURLINGTON	101	1000.3	1012.4	25.7	14.8	20.3	-0.7	34.4	6	7.2	26	2	0	15.0	74	77	-12	14	17	6	0	0	1.0	18	10.7	S	23	6	6	19	7.2	63
VIRGINIA																																
LYNCHBURG	279	982.7		29.6	17.2	23.4	-0.9	34.4	24+	11.1	2	7	0			33	-70	16	8		0	0			11.6	W	29	6	16	9	5.7	68
NORFOLK	7	1014.2	1015.1	30.8	20.4	25.7	-0.1	35.0	29+	16.1	26+	9	0	18.3	67	132	-13	58	11	13	0	0	1.1	24	13.4	28	30	5	15	11	6.0	
RICHMOND	50	1008.5	1014.9	32.1	18.2	25.2	-0.3	37.8	15	11.7	13	16	0	18.9	70	67	-76	17	11	9	0	0	0.8	25	12.5	NW	11	5	16	10	6.5	56
ROANOKE	350	974.9	1016.1	29.9	16.7	23.3	-0.7	35.0	24+	10.0	2	9	0	16.7	69	31	-64	11	8	8	0	0	2.1	28	10.7	27	12	6	15	10	6.1	
WALLOPS ISLAND	3			27.3	19.4	23.3	-1.2	33.9	24	15.6	19	1	0			77	-22	17	14		0	0			30.0Y	WNW	12					
WASHINGTON																																
OLYMPIA	59	1009.5	1016.8	23.7	9.3	16.5	-1.1	30.0	23	4.4	28	0	0	11.1	74	32	14	20	8	0	0	0	0.8	22	7.6	16	7	8	9	14	6.1	
QUILLAYUTE	55	1010.2	1017.8	19.6	9.7	14.7	-0.3	26.1	15	5.6	25	0	0	11.1	82	87	27	43	15	0	0	0	1.1	24	8.0	SE	7	5	7	19	7.3	42
SEATTLE J	6			23.1	13.6	18.3	-0.4	28.9	23	10.0	27	0	0			26	4	15	8		0	0			18.3Y	S	20					
SEATTLE-TACOMA	122	1001.0	1017.3	24.4	13.3	18.8	0.8	30.0	15	10.6	2	0	0	11.1	64	30	12	19	6	0	0	0	0.9	26	10.3	NE	28	10	9	12	5.5	70
SPOKANE	718	931.3	1013.5	27.7	13.2	20.4	-0.5	35.0	17	7.8	2	7	0	6.1	43	20	10	13	6	2	0	0	1.7	19	11.6	S	17+	9	8	14	5.5	69
STAMPEDE PASS R	1206	881.1		17.2	7.8	12.6	-0.9	25.6	15	3.3	1	0	0			29	-10	15	9		0	0						9	8	14	5.6	
WALLA WALLA U	289			31.1	16.0	23.6	-0.7	38.3	16	10.6	2+	15	0			8	-1	6	3		0	0			8.9	SW	12	13	11	7	4.0	77
YAKIMA	321	976.0		29.6	11.5	20.6	-0.9	36.7	16	3.9	1	11	0			7	3	6	4	0	0	0						13	8	10	4.6	

CLIMATOLOGICAL DATA

METRIC UNITS

JULY 1976

State and Station	Elevation of ground	Pressure: Station level	Pressure: Sea level	Temperature: Average daily max	Temperature: Average daily min	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days Max 32.2°C or above	Temperature: No. of days Min 0°C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days 25 mm or more	Precipitation: No. of days With thunderstorms	Precipitation: Snow, ice pellets Total	Precipitation: Snow, ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No. of days sunrise to sunset: Clear, 0-3	No. of days sunrise to sunset: Partly cloudy, 4-7	No. of days sunrise to sunset: Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
WEST INDIES																																
SAN JUAN P.R.	4	1015.9	1018.4	31.3	25.4	28.4	1.2	33.3	14	23.9	9+	8	0	20.6	64	63	-100	43	17	2	0	0	4.6	6	12.1	E	31	3	16	12	6.5	78
WEST VIRGINIA																																
BECKLEY	763	931.6	1017.1	25.4	14.6	20.1	-1.1	30.6	24+	8.3	18	0	0	15.0	76	90	-21	36	11	9	0	0	1.8	25	10.3	28	12	2	15	14	7.0	
CHARLESTON	286	983.1	1016.5	28.4	16.5	22.4	-1.4	33.9	11	10.6	18	4	0	16.7	73	174	48	74	14	10	0	0	1.4	24	15.6	26	15	5	17	9	6.1	
ELKINS	894	947.2		25.9	13.7	19.8	-0.6	31.1	15	7.2	13	0	0			157	31	36	15		0	0						2	12	17	7.3	
HUNTINGTON	252	986.8	1016.3	28.1	17.1	22.6	-1.4	33.3	24+	11.7	18	5	0	17.2	76	139	33	53	9	12	0	0	1.4	25	14.3	31	15	4	12	15	6.7	
PARKERSBURG	187			27.9	16.7	22.3	-1.7	34.4	15	12.2	18	2	0			165	56	55	14		0	0										61
WISCONSIN																																
GREEN BAY	209	989.5	1014.6	29.7	14.4	22.1	1.4	36.1	10	8.3	12	7	0	14.4	64	75	-3	40	6	3	0	0	0.8	28	12.1	SW	19	9	14	8	4.9	72
LA CROSSE	198	991.9	1016.6	29.9	17.2	23.6	0.9	36.1	10	8.3	1	14	0	16.1	65	55	-35		8	8	0		0.4	23								
MADISON	262	984.1	1015.1	31.5	14.4	23.0	1.8	40.0	10	7.2	17+	16	0	13.3	57	37	-60	22	5	5	0	0	0.9	26	19.2	N	30	15	7	9	4.7	72
MILWAUKEE	205	990.5	1015.2	28.0	17.1	22.6	1.5	37.2	10	11.1	2	6	0	16.1	68	54	-33	27	8	4	0	0	0.9	27	21.9	NE	30	14	10	7	4.5	73
WYOMING																																
FARBER	1627	839.1	1012.4	30.8	14.4	22.7	1.0	37.2	9	8.3	3	12	0	7.8	44	27	3	17	5	7	0	0	1.3	21	13.0	19	29+	14	11	6	4.3	
CHEYENNE	1867	814.8	1013.3	28.5	12.8	20.7	0.1	34.4	10+	8.3	3	5	0	6.1	45	61	14	27	11	12	0	0	0.6	24	15.6	N	10	9	13	9	5.4	55
LANDER	1696	831.4	1012.8	31.1	13.8	22.5	1.1	36.1	10+	8.9	3	13	0	4.4	35	27	11	22	4	8	0	0	1.4	25	16.1	SW	17	14	12	5	4.4	79
SHERIDAN	1208	879.4	1013.3	31.8	17.1	24.9	0.6	38.9	24	7.2	4	16	0	10.0	52	19	-9	8	8	10	0	0	0.5	29	13.4	NW	18+	15	11	5	4.1	81

HEATING DEGREE DAYS

(Base 65°F.)

JULY 1976

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	0	0	0
HUNTSVILLE	0	0	0
MOBILE	0	0	0
MONTGOMERY	0	0	0
ALASKA			
ANCHORAGE	184	184	220
ANNETTE	216	216	231
BARROW	816	816	815
BARTER ISLAND	820	820	775
BETHEL	309	309	319
BETTLES	219	219	231
BIG DELTA	98	98	181
COLD BAY	463	463	462
FAIRBANKS	116	116	148
GULKANA	222	222	254
HOMER	342	342	394
JUNEAU	280	280	288
KING SALMON	359	359	326
KODIAK	308	308	338
KOTZEBUE	430	430	375
MC GRATH	193	193	219
NOME	502	502	462
ST. PAUL ISLAND	610	610	598
SUMMIT	368	368	403
TALKEETNA	179	179	220
UNALAKLEET	341	341	341
VALDEZ	285	285	363
YAKUTAT	321	321	360
ARIZONA			
FLAGSTAFF	17	17	52
PHOENIX	0	0	0
TUCSON	0	0	0
WINSLOW	0	0	0
YUMA	0	0	0
ARKANSAS			
FORT SMITH	0	0	0
LITTLE ROCK	0	0	0
CALIFORNIA			
BAKERSFIELD	0	0	0
BISHOP	1	1	0
BLUE CANYON	21	21	27
EUREKA U	226	226	270
FRESNO	0	0	0
LONG BEACH	M	0	0
LOS ANGELES	0	0	19
LOS ANGELES U	0	M	0
MT SHASTA R	23	23	37
OAKLAND	46	46	80
RED BLUFF	0	0	0
SACRAMENTO	0	0	0
SANDBERG R	6	6	7
SAN DIEGO	0	0	6
SAN FRANCISCO	72	72	93
SAN FRANCISCO U	173	173	202
SANTA MARIA	44	44	112
STOCKTON	0	0	0
COLORADO			
ALAMOSA	24	24	55
COLORADO SPRINGS	0	0	9
DENVER	0	0	0
GRAND JUNCTION	0	0	0
PUEBLO	0	0	0
CONNECTICUT			
BRIDGEPORT	0	M	0
HARTFORD	0	0	0
DELAWARE			
WILMINGTON	0	0	0
DIST.OF COLUMBIA			
WASHINGTON DULLES	0	0	0
WASHINGTON NATIONAL	0	0	0
FLORIDA			
APPALACHICOLA U	0	0	M
DAYTONA BEACH	0	0	0
FORT MYERS	0	0	0
JACKSONVILLE	0	0	0
KEY WEST	0	0	0
LAKELAND U	0	0	0
MIAMI	0	0	0
ORLANDO	0	0	0
PENSACOLA	0	0	0
TALLAHASSEE	0	0	0
TAMPA	0	0	0
WEST PALM BEACH	0	0	0
GEORGIA			
ATHENS	0	0	0
ATLANTA	0	0	0
AUGUSTA	0	0	0
COLUMBUS	0	0	0
MACON	0	0	0
ROME	0	0	0
SAVANNAH	0	0	0
IDAHO			
BOISE	3	3	0
LEWISTON	3	3	0
POCATELLO	1	1	0
ILLINOIS			
CAIRO U	0	0	0
CHICAGO O HARE	0	0	7
CHICAGO MIDWAY	0	0	0
MOLINE	0	0	0
PEORIA	0	0	0
ROCKFORD	2	2	6
SPRINGFIELD	0	0	0
INDIANA			
EVANSVILLE	0	0	0
FORT WAYNE	0	0	0
INDIANAPOLIS	0	0	0
SOUTH BEND	0	0	6
IOWA			
BURLINGTON	0	M	0
DES MOINES	0	0	0
DUBUQUE	0	0	11
SIOUX CITY	1	1	0
WATERLOO	2	2	7
KANSAS			
CONCORDIA	0	0	0
DODGE CITY	0	0	0
GOODLAND	0	0	0
TOPEKA	0	0	0
WICHITA	0	0	0
KENTUCKY			
COVINGTON	0	0	0
LEXINGTON	1	1	0
LOUISVILLE	0	M	0
LOUISIANA			
ALEXANDRIA	0	0	0
BATON ROUGE	0	0	0
LAKE CHARLES	0	0	M
NEW ORLEANS	0	0	0
SHREVEPORT	0	0	0
MAINE			
CARIBOU	84	84	84
PORTLAND	45	45	27
MARYLAND			
BALTIMORE	0	0	0
MASSACHUSETTS			
BLUE HILL OBS R	7	7	6
BOSTON	1	1	0
WORCHESTER	17	17	10
MICHIGAN			
ALPENA	27	27	75
DETROIT	0	0	0
DETROIT METRO	1	1	5
FLINT	1	1	14
GRAND RAPIDS	0	0	M
HOUGHTON LAKE	24	24	59
LANSING	4	4	9
MARQUETTE U	36	36	57
MUSKEGON	5	5	15
SAULT STE MARIE	76	76	96
MINNESOTA			
DULUTH	35	35	67
INTERNATIONAL FALLS	40	40	66
MINNEAPOLIS	0	0	11
ROCHESTER	1	1	21
ST CLOUD	7	7	18
MISSISSIPPI			
JACKSON	0	0	0
MERIDIAN	0	0	0
MISSOURI			
COLUMBIA REGIONAL	0	0	0
KANSAS CITY	0	0	0
ST JOSEPH	0	0	0
ST LOUIS	0	0	0
SPRINGFIELD	0	0	0
MONTANA			
BILLINGS	0	0	10
GLASGOW	9	9	15
GREAT FALLS	3	3	18
HAVRE	4	4	18
HELENA	15	15	33
KALISPELL	64	64	72
MILES CITY	1	1	9
MISSOULA	25	25	39
NEBRASKA			
GRAND ISLAND	0	0	M
LINCOLN	0	0	0
NORFOLK	0	0	6
NORTH PLATTE	M	0	7
OMAHA	0	M	0
SCOTTSBLUFF	0	0	0
VALENTINE	5	5	8
NEVADA			
ELKO	12	12	27
ELY	31	31	23
LAS VEGAS	0	0	0
RENO	15	15	17
WINNEMUCCA	8	8	6
NEW HAMPSHIRE			
CONCORD	37	37	16
MT WASHINGTON OBS	547	547	502
NEW JERSEY			
ATLANTIC CITY	0	0	0
ATLANTIC CITY U	0	0	0
NEWARK	0	M	M
TRENTON U	0	0	0
NEW MEXICO			
ALBUQUERQUE	0	0	0
CLAYTON	0	0	0
ROSWELL	0	0	0
NEW YORK			
ALBANY	7	7	9
BINGHAMTON	31	31	21
BUFFALO	15	15	12
NEW YORK U	0	M	0
NEW YORK KENNEDY	0	0	0
NEW YORK LA GUARDIA	0	0	0
ROCHESTER	11	11	M
SYRACUSE	24	24	11
NORTH CAROLINA			
ASHEVILLE	2	2	0
CAPE HATTERAS R	0	0	0
CHARLOTTE	0	0	0
GREENSBORO	0	0	0
RALEIGH	0	0	0
WILMINGTON	0	M	0
NORTH DAKOTA			
BISMARCK	11	11	18
FARGO	13	13	13
WILLISTON	10	10	22
OHIO			
AKRON	15	15	9
CINCINNATI ABBE OB	0	0	0
CLEVELAND	0	0	9
COLUMBUS	1	1	0
DAYTON U	0	M	0
MANSFIELD	8	M	0
TOLEDO	1	1	5
YOUNGSTOWN	18	18	9
OKLAHOMA			
OKLAHOMA CITY	0	0	0
TULSA	0	0	0
OREGON			
ASTORIA	117	117	163
BURNS U	25	25	30
EUGENE	10	10	41
MEDFORD	9	M	11
PENDLETON	4	4	M
PORTLAND	15	15	48
SALEM	43	43	43
SEXTON SUMMIT R	86	86	97
PENNSYLVANIA			
ALLENTOWN	1	1	0
ERIE	28	28	24
HARRISBURG	0	M	0
PHILADELPHIA	0	0	0
PITTSBURGH	15	15	7
PITTSBURGH U	2	2	0
SCRANTON	M	M	7
WILLIAMSPORT	0	M	0
RHODE ISLAND			
BLOCK ISLAND	3	3	M
PROVIDENCE	2	2	0
SOUTH CAROLINA			
CHARLESTON	0	0	0
CHARLESTON U	0	0	0
COLUMBIA	0	0	0
GRNVLLE-SPRTNBRG	0	0	0
SOUTH DAKOTA			
ABERDEEN	3	3	12
HURON	5	M	9
RAPID CITY	3	3	13
SIOUX FALLS	1	1	10
TENNESSEE			
BRISTOL	0	0	0
CHATTANOOGA	0	0	0
KNOXVILLE	0	0	0
MEMPHIS	0	0	0
NASHVILLE	0	0	0
OAK RIDGE	1	1	0
TEXAS			
ABILENE	0	0	0
AMARILLO	0	0	0
AUSTIN	0	0	0
BROWNSVILLE	0	0	0
CORPUS CHRISTI	0	0	0
DALLAS FT WORTH	0	0	0
DEL RIO	0	0	0
EL PASO	0	0	0
GALVESTON	0	0	0
HOUSTON INTERCON	0	0	0
LUBBOCK	0	0	0
MIDLAND	0	0	0
PORT ARTHUR	0	0	0
SAN ANGELO	0	0	0
SAN ANTONIO	0	0	0
VICTORIA	0	0	0
WACO	0	0	0
WICHITA FALLS	0	0	0
UTAH			
MILFORD	0	0	0
SALT LAKE CITY	0	0	0
WENDOVER	0	0	0
VERMONT			
BURLINGTON	20	20	60
VIRGINIA			
LYNCHBURG	0	0	0
NORFOLK	0	M	0
RICHMOND	0	0	0
ROANOKE	0	0	0
WALLOPS ISLAND	0	0	0
WASHINGTON			
OLYMPIA	104	104	89
QUILLAYUTE	196	196	194
SEATTLE	32	32	62
SEATTLE-TACOMA	24	24	80
SPOKANE	20	20	41
STAMPEDE PASS R	318	318	281
WALLA WALLA U	3	3	5
YAKIMA	26	26	60
WEST VIRGINIA			
BECKLEY	24	24	11
CHARLESTON	0	0	0
ELKINS	24	24	20
HUNTINGTON	0	0	0
PARKERSBURG U	0	0	0
WISCONSIN			
GREEN BAY	2	2	22
LA CROSSE	3	3	10
MADISON	4	4	14
MILWAUKEE	2	M	15
WYOMING			
CASPER	3	3	13
CHEYENNE	11	11	22
LANDER	1	1	9
SHERIDAN	1	1	28

COOLING DEGREE DAYS

(Base 65° F.)

JULY 1979

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM	410	816	1131
HUNTSVILLE	384	745	1054
MOBILE	575	1528	1846
MONTGOMERY	482	984	1297
ALASKA			
ANCHORAGE	3	3	0
ANNETTE	16	16	14
BARROW	0	0	0
BAXTER ISLAND	0	0	0
BETHEL	0	0	0
BETTLES	22	22	17
BIG DELTA	24	24	28
COLD BAY	0	0	0
FAIRBANKS	25	25	46
GULKANA	9	9	9
HOMER	0	0	0
JUNEAU	3	3	0
KING SALMON	0	0	0
KODIAK	5	5	3
KOTZEBUE	0	0	0
MC GRATH	2	2	14
NOME	0	0	0
ST. PAUL ISLAND	0	0	0
SUMMIT	0	0	0
TALKEETNA	1	1	0
UNALAKLEET	0	0	0
VALDEZ	0	0	0
YAKUTAT	0	0	0
ARIZONA			
FLAGSTAFF	71	85	89
PHOENIX	838	2233	1931
TUCSON	697	1545	1565
WINSLOW	413	667	691
YUMA	830	2164	2258
ARKANSAS			
FORT SMITH	435	774	1161
LITTLE ROCK	481	906	1124
CALIFORNIA			
BAKERSFIELD	643	1471	1196
BISHOP	381	575	426
BLUE CANYON	124	178	143
EUREKA U	0	0	0
FRESNO	454	890	926
LONG BEACH	271	601	384
LOS ANGELES	143	314	221
LOS ANGELES U	249	535	483
MT SHASTA R	137	155	160
OAKLAND	9	102	42
RED BLUFF	570	1,138	1051
SACRAMENTO	363	817	625
SANDBERG R	237	402	372
SAN DIEGO	196	401	267
SAN FRANCISCO	4	113	34
SAN FRANCISCO U		98	5
SANTA MARIA	13	92	27
STOCKTON	392	721	677
COLORADO			
ALAMOSA	25	26	64
COLORADO SPRINGS	277	293	283
DENVER	324	439	358
GRAND JUNCTION	445	687	681
PUEBLO	365	537	585
CONNECTICUT			
BRIDGEPORT	204	425	401
HARTFORD	235	558	365
DELAWARE			
WILMINGTON	291	613	579
DIST.OF COLUMBIA			
WASHINGTON DULLES	232	492	564
WASHINGTON NATIONAL	424	990	829
FLORIDA			
APPALACHICOLA	498	1209	1486
DAYTONA BEACH	497	1427	1578
FORT MYERS	521	1864	2026
JACKSONVILLE	538	1252	1448
KEY WEST	611	2607	2755
LAKELAND U	581	1899	1841
MIAMI	549	2303	2197
ORLANDO	569	1855	1779
PENSACOLA	490	1307	1552
TALLAHASSEE	537	1322	1476
TAMPA	525	1751	1869
WEST PALM BEACH	507	1942	2041
GEORGIA			
ATHENS	410	844	1015
ATLANTA	359	738	917
AUGUSTA	482	1010	1182
COLUMBUS	493	1056	1255
MACON	514	1111	1364
ROME	403	762	932
SAVANNAH	526	1154	1350
HAWAII			
HILO	372	1648	1844
HONOLULU	464	2332	2226
KAHULUI	423	1990	1976
LIHUE	470	2386	2348
IDAHO			
BOISE	269	348	403
LEWISTON	288	365	366
POCATELLO	227	284	254
ILLINOIS			
CAIRO U	471	920	1090
CHICAGO O HARE	286	506	394
CHICAGO MIDWAY	312	587	545
MOLINE	341	584	555
PEORIA	326	544	595
ROCKFORD	271	431	437
SPRINGFIELD	393	686	681
INDIANA			
EVANSVILLE	374	730	835
FORT WAYNE	254	482	457
INDIANAPOLIS	284	518	600
SOUTH BEND	249	492	415
IOWA			
BURLINGTON	348	542	608
DES MOINES	385	643	567
DUBUQUE	266	390	373
SIOUX CITY	359	579	584
WATERLOO	282	433	424
KANSAS			
CONCORDIA	458	743	749
DODGE CITY	484	825	820
GOODLAND	357	528	543
TOPEKA	410	727	802
WICHITA	420	743	973
KENTUCKY			
COVINGTON	276	576	641
LEXINGTON	257	515	713
LOUISVILLE	372	734	745
LOUISIANA			
ALEXANDRIA	516	1273	1267
BATON ROUGE	506	1327	1510
LAKE CHARLES	490	1344	1573
NEW ORLEANS	509	1401	1554
SHREVEPORT	428	1068	1440
MAINE			
CARIBOU	52	162	89
PORTLAND	8	210	142
MARYLAND			
BALTIMORE	317	742	655
MASSACHUSETTS			
BLUE HILL OBS R	171	416	274
BOSTON	251	595	397
WORCHESTER	110	308	240
MICHIGAN			
ALPENA	113	227	123
DETROIT	322	633	443
DETROIT METRO	246	468	397
FLINT	196	376	270
GRAND RAPIDS	239	428	351
HOUGHTON LAKE	93	198	155
LANSING	198	389	329
MARQUETTE	92	170	112
MUSKEGON	166	296	270
SAULT STE MARIE	33	67	70
MINNESOTA			
DULUTH	75	128	100
INTERNATIONAL FALLS	76	156	120
MINNEAPOLIS	351	602	373
ROCHESTER	278	418	306
ST CLOUD	193	320	279
MISSISSIPPI			
JACKSON	497	1115	1358
MERIDIAN	469	811	1323
MISSOURI			
COLUMBIA REGIONAL	409	612	752
KANSAS CITY	444	694	839
ST JOSEPH	414	695	803
ST LOUIS	458	777	883
SPRINGFIELD	367	595	796
MONTANA			
BILLINGS	276	298	287
GLASGOW	180	230	255
GREAT FALLS	174	231	187
HAVRE	220	258	235
HELENA	102	116	143
KALISPELL	59	74	60
MILES CITY	365	488	434
MISSOULA	89	110	107
NEBRASKA			
GRAND ISLAND	387	621	621
LINCOLN	413	670	699
NORFOLK	381	630	563
NORTH PLATTE	247	314	486
OMAHA	440	735	710
SCOTTSBLUFF	359	523	407
VALENTINE	330	499	443
NEVADA			
ELKO	157	168	194
ELY	103	121	114
LAS VEGAS	687	1650	1654
RENO	144	169	196
WINNEMUCCA	287	362	253
NEW HAMPSHIRE			
CONCORD	100	311	219
MT WASHINGTON OBS	0	0	0
NEW JERSEY			
ATLANTIC CITY	238	467	506
ATLANTIC CITY U	219	395	436
NEWARK	317	678	597
TRENTON U	292	661	577
NEW MEXICO			
ALBUQUERQUE	388	680	789
CLAYTON	244	403	452
ROSWELL	429	1088	954
NEW YORK			
ALBANY	120	334	367
BINGHAMTON	61	204	230
BUFFALO	109	273	263
NEW YORK U	310	669	616
NEW YORK KENNEDY	250	451	484
NEW YORK LA GUARDIA	344	712	608
ROCHESTER	150	372	327
SYRACUSE	84	243	333
NORTH CAROLINA			
ASHEVILLE	198	338	512
CAPE HATTERAS R	401	855	812
CHARLOTTE	374	744	932
GREENSBORO	344	700	806
RALEIGH	428	953	820
WILMINGTON	525	1215	1128
NORTH DAKOTA			
BISMARCK	212	352	295
FARGO	228	396	289
WILLISTON	185	284	253
OHIO			
AKRON	132	301	385
CINCINNATI ABBE OB	386	614	714
CLEVELAND	214	421	372
COLUMBUS	223	446	497
DAYTON U	259	493	566
MANSFIELD	145	295	487
TOLEDO	230	426	417
YOUNGSTOWN	137	333	316
OKLAHOMA			
OKLAHOMA CITY	448	887	1057
TULSA	520	920	1104
OREGON			
ASTORIA	4	7	8
BURNS U	153	166	165
EUGENE	101	116	125
MEDFORD	215	255	302
PENDLETON	270	343	375
PORTLAND	89	116	159
SALEM	59	65	118
SEXTON SUMMIT R	61	77	60
PACIFIC AREA			
GUAM TAGUAC R	1454	2840	2875
JOHNSTON	446	2609	2803
KOROR R	533	3015	3472
KWAJALEIN	522	3468	3541
MAJURO	473	3179	3410
PAGO PAGO	427	3154	3138
PONAPE R	479	3359	3302
TRUK MOEN ISLAND	512	3460	3422
WAKE	545	3037	2982
YAP R	453	3214	3432
PENNSYLVANIA			
ALLENTOWN	214	533	476
ERIE	81	194	220
HARRISBURG	233	585	627
PHILADELPHIA	336	774	656
PITTSBURGH	99	273	401
SCRANTON	145	405	375
WILLIAMSPORT	173	451	429
RHODE ISLAND			
BLOCK ISLAND	128	322	174
PROVIDENCE	183	412	310
SOUTH CAROLINA			
CHARLESTON	506	1172	1281
CHARLESTON U	540	1344	1341
COLUMBIA	460	1072	1235
GRNVLLE-SPRTNBRG	387	675	932
SOUTH DAKOTA			
ABERDEEN	326	520	348
HURON	313	485	488
RAPID CITY	251	338	316
SIOUX FALLS	370	522	442
TENNESSEE			
BRISTOL	266	487	621
CHATTANOOGA	342	652	905
KNOXVILLE	355	707	932
MEMPHIS	519	1087	1207
NASHVILLE	363	793	1002
OAK RIDGE	279	484	816
TEXAS			
ABILENE	401	1098	1426
AMARILLO	312	580	843
AUSTIN	479	1373	1650
BROWNSVILLE	514	1998	2233
CORPUS CHRISTI	510	1858	1973
DALLAS FT WORTH	537	1239	1437
DEL RIO	410	1571	1905
EL PASO	418	1104	1200
GALVESTON	510	1434	1647
HOUSTON INTERCON	490	1313	1637
LUBBOCK	317	825	1006
MIDLAND	344	996	1307
PORT ARTHUR	512	1388	1585
SAN ANGELO	454	1065	1589
SAN ANTONIO	467	1434	1765
VICTORIA	505	1600	1777
WACO	546	1390	1610
WICHITA FALLS	500	1133	1486
UTAH			
MILFORD	300	361	386
SALT LAKE CITY	431	616	517
WENDOVER	509	750	647
VERMONT			
BURLINGTON	135	369	293
VIRGINIA			
LYNCHBURG	289	576	666
NORFOLK	417	991	821
RICHMOND	389	908	805
ROANOKE	285	574	614
WALLOPS ISLAND	288	515	603
WASHINGTON			
OLYMPIA	9	11	60
QUILLAYUTE	4	8	8
SEATTLE	41	52	111
SEATTLE-TACOMA	59	85	76
SPOKANE	143	167	214
STAMPEDE PASS R	2	2	8
WALLA WALLA U	303	381	488
YAKIMA	150	188	295
WEST INDIES			
SAN JUAN P.R.	560	3044	2783
WEST VIRGINIA			
BECKLEY	127	264	298
CHARLESTON	230	586	648
ELKINS	117	239	244
HUNTINGTON	244	604	672
PARKERSBURG U	229	513	631
WISCONSIN			
GREEN BAY	219	357	240
LA CROSSE	304	483	434
MADISON	270	426	286
MILWAUKEE	247	420	295
WYOMING			
CASPER	250	279	259
CHEYENNE	145	152	194
LANDER	238	280	218
SHERIDAN	211	239	253

STORM SUMMARY

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				ϕ ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS
Alabama	1	1			5							4			3														
Alaska																4													
Arizona	1	1							3		14	6		1	2	4											5		
Arkansas	1	1						1			4	5	3		5	2													
California *																													
Colorado	1	1			4			1	2			2	2			2	2									156	250	57	C
Connecticut																4													
Delaware																4											3		
Florida	10	10			5						1	5		2	6	5													
Georgia											4	5	4	3	23	4	1												
Hawaii *																													
Idaho									6			4				4													2
Illinois	2	1			4				3			5															4		
Indiana	2	2			3						11	5	4			4	2												
Iowa	1	1			3			3	2			05	C																
Kansas								5	5			4	4													2		5		
Kentucky								4	6			4	3		4	5	4													
Louisiana	1	1			4							5		1		5													
Maine														1		4											4	4	
Maryland & DC									4		1	3	3	1	6	5											3	3	
Massachusetts												4	3		2	5											6		
Michigan	3	3		7	5			5				5			1	5											96	C	
Minnesota	1	1		1	4			3	7			5	3			5													
Mississippi											1	5	2			4												5	
Missouri	1	1						4	4		4	5															1	8	8
Montana							1	5	6		1	4		1	3														
Nebraska	10	4			5			5	6			4				3													
Nevada										1		5															4		
New Hampshire									2			2			1	4											5	4	
New Jersey	1	1			5																								
New Mexico								3	4			3	4	1													5	4	
New York									2			05	C	3	3	5										1	6	2	
North Carolina	3	3			5			4	6			5	4		8	4													
North Dakota	5	4		2	5			2	7			5	2			4											2	2	
Ohio	2	2			2			04	C	3	11	8			3	4													
Oklahoma	2	2			2			4	2		3	4			3	4											4		
Oregon																											2	7	
Pacific												2	2														2	2	
Pennsylvania	3	1		1	6			2	2			5	5			5											6	3	
Puerto Rico *																													
Rhode Island																4											6		
South Carolina												4				4	3										3	4	
South Dakota	1	1			3			4	5			2	2			3													
Tennessee									3		7	5		1	1	4										1			
Texas	16	8			5			4	6			6	2	1	1	4										1	5	8	
Utah																											5		
Vermont												5	6	1		5											5		
Virginia	1	1			4				4			5	3			5											3		
Virgin Islands *																													
Washington *																													
West Virginia	1	1			5						1	5			4	5	3									1	5	5	
Wisconsin	1	1		4	5			2				5															5	8	
Wyoming	3	3			5			04	C					2															

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

JULY 1976

Herbert J. Thompson, Office of Hydrology

The most serious flooding during July was caused by flash flooding. The flood on the Big Thompson River with at least 136 lives lost and $30 million in damage ranks as one of the Nation's worst flood disasters. Major flash flooding also occurred in the Lake Champlain drainage and the upper Susquehanna River Basin in New York State with $14 million in losses.

The only serious river flooding occurred in southeastern Kansas along the Walnut, Verdigris, and Neosho Rivers. Losses approached $20 million. A record crest stage was reported on the Walnut River.

Some river flooding was reported in the Lake Erie Drainage in Michigan and Ohio with a record crest stage on the Cuyahoga River, in the south Atlantic Slope Drainage, the White River Basin in Arkansas, and the West Gulf of Mexico Drainage. A number of flash flood events occurred particularly in the Southwest.

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
HUDSON BAY DRAINAGE		
Although the record spring flooding on the Souris River ended during June, the resulting high river levels combined with heavy rains over the Canadian headwaters the latter part of June to cause some relatively minor flooding on the Souris at Lake Darling and Towner, ND.	0	N.A.
A narrow band of very heavy rainfall with amounts of 3.5 to 5.5 inches in 3 to 4 hours over the northern Detroit metropolitan area on the 28th caused severe urban flooding with basement and street flooding. About 8,000 automobiles were temporarily stalled on freeways in the area. The Clinton River crested 5 feet over flood stage at Fraser, MI. Minor flooding was reported on the upper Rouge River and on the Elkhart River at Goshen, IN.	0	N.A.
Record flooding occurred on the Cuyahoga River at Old Portage, OH, on the 11th. The crest was 12.28 feet with flood stage at 9 feet. The previous record was 11.54 feet in January 1959. The Chagrin River crested nearly 2 feet over flood stage at Willoughby, OH. Many highways in eastern Ohio were affected by small stream flooding.	0	N.A.
Minor urban flooding occurred in the northern suburbs of Buffalo on the 10th and in southern Erie County on the 31st. More serious urban flooding on the 29th in southern Erie County, New York, where 4.5 inches of rain fell in a few hours.	0	N.A.
In the Lake Champlain Drainage serious flash flooding occurred in the Lake George area of New York where 4.9 inches of rain in 6 hours was unofficially reported on the 11th. Flash flooding also was reported on the Clarendon and Castleton Rivers and Otter Creek in Vermont with some evacuations.		
ATLANTIC SLOPE DRAINAGE		
Major flash flooding occurred on the 11th in the upper Susquehanna and Mohawk River Drainages in New York State, affecting the counties of St. Lawrence, Broome, Courtland, Tioga, Tompkins, Herkimer, Oneida, Warren, and Washington. Sparse rainfall reports indicate 3 to 4 inches in a short	1	14,000

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
ATLANTIC SLOPE DRAINAGE-Cont'd		
period of time. A new 3-hour rainfall record of 2.84 inches was recorded at the Broome County airport. Much of the damage occurred along Castle, Potato, and Nanticoke Creeks in Broome County. Losses were estimated by the Corps of Engineers at over $14 million, which includes losses in the Lake Champlain Drainage discussed above. The total also includes more than $2 million road and highway damage and $6 million agricultural damage in Courtland County. A drowning occurred in Wood Creek near Utica, NY.		
Some generally minor flooding occurred in some areas of the Southeast. Streams affected include the Lumber River in North Carolina and the Black, Little Pee Dee, Congaree, North Fork Edisto, Edisto and Savannah Rivers, and Black Creek in South Carolina. The Edisto crested nearly 3 feet over flood stage at Givhans Ferry, SC, on the 9th.	0	N.A.
Late June rains caused crests of more than a foot above flood stage on the Rockaway and Saddle Rivers in New Jersey on the 1st.	0	N.A.
EAST GULF OF MEXICO DRAINAGE		
There was no river flooding reported in the East Gulf Drainage during July. Some flash flooding was reported in DeKalb County, AL, the 4th and 5th. A 48-hour rainfall total of 7.89 inches occurred at Valley Head. Urban flooding was reported in Tuscaloosa, AL, on the 28th.	0	N.A.
UPPER MISSISSIPPI RIVER BASIN		
Critical deficiencies in precipitation continued over most of the area with central Minnesota reporting deficiencies of up to 3.5 inches. Heavy rainfall of up to over 4 inches occurred over southern Minnesota into Wisconsin and produced a bankfull rise on the North Fork of the Whitewater River in southeast Minnesota. At Ankeny, IA, a heavy localized storm produced 5 inches of rain in about 6 hours with street and basement flooding. The Mississippi River approached a record low stage at Rock Island, IL.	0	N.A.
MISSOURI RIVER BASIN		
One of the worst flash floods in the Nation's history and the worst in terms of lives lost since the Rapid City flood of 1972, occurred on the 31st along the Big Thompson River in north central Colorado. The flooding resulted from a series of thunderstorms that developed just south of the basin and moved northward along the same track across the basin. Heaviest rain fell between 6 p.m. and midnight with confirmed amounts of up to 11.5 inches, of which an estimated 10 inches fell in about 90 minutes on the main stem of the river and up to 8 inches along the North Fork. The wall of water estimated at 19 feet high moving down stream destroyed or damaged all dwellings along the river. The Loveland municipal power plant, a brick building, was moved off its foundation, 323 houses and	136	30,000

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars
MISSOURI RIVER BASIN-Cont'd		
96 mobile homes were destroyed, and 79 houses and 15 mobile homes sustained major damage. Minor damage occurred to 47 houses. The flooding affected 612 families. At least 136 persons were drowned with several more still unaccounted for. The U. S. Geological Survey estimated the discharge at the mouth of the stream at 40,000 c.f.s., which is 2.4 times that of a 100 year flood at this site. Less serious flooding occurred on Buckhorn Creek and the Cache La Poudre River. No stage reports are received from these streams. The flooding almost completely demolished U. S. Highway 34 between Loveland and Estes Park.		
Elsewhere in the Missouri Basin flash flooding occurred near the Gas Hills Community in eastern Fremont County, Wyoming, during the night of the 31st. Rainfall was estimated at 4 to 5 inches. Several mining roads were washed out, closing a mine for about 2 weeks. Also, on the night of the 31st flash flooding was reported on the North Laramie River west of Wheatland, WY. Two private ranch roads were damaged along with the loss of a tractor and some outbuildings. Rainfall was estimated at 6 to 7 inches.	0	N.A.
Urban flooding occurred in Chadron, NE, on the 2d. Rainfall amounted to 3 to 4 inches in 45 minutes.		
In the lower Missouri Basin severe urban flooding occurred in Overland Park, KS, a suburb of Kansas City, MO, the late afternoon of the 15th. Up to 4 inches of rain fell in less than 2 hours. Two people drowned in a drainage ditch. Minor flooding was reported on the upper Chariton River in Iowa.	2	N.A.
OHIO RIVER BASIN		
Rainfall of about 3 inches on the night of the 11th-12th caused flash flooding in Charleston, WV, along Sugar Creek with some evacuations necessary, and small stream flooding in Mason County, WV. State highways 119, 60, and 21 were closed for a time.	0	N.A.
In Ohio, urban flooding was reported in Lisbon and Salem on the 11th. The Hocking River crested more than a foot over flood stage on the 23d.	0	N.A.
Minor flooding was reported on the Wabash River at Terre Haute, IN on the 1st and on South Chickamauga Creek, which crested more than 2 feet over flood stage on the 5th near Chattanooga, TN.		
WHITE RIVER BASIN		
Total rainfall for July was up to 6 inches above normal over a small area of northwest Arkansas with 3-inch rains on the 2d-4th. These rains prolonged the flooding on the Cache River at Patterson, AR, which had begun in late June and lasted the entire month. These rains also caused periods of flooding on the Black River at Black Rock, AR, and the White River at Augusta, AR. Areas flooded were mostly farmland devoted to soybeans which are not generally planted after the 15th. This flooding prevented the replanting of land that had been flooded	0	N.A.

FLOOD STAGE DATA

(All dates in July unless otherwise specified)

JULY 1976

River and station	Flood stage	Above flood stages —dates From—	To—	Crest Stage	Date
	Ft			Ft	
HUDSON BAY DRAINAGE					
Souris River:					
Lake Darling, ND	21				6
Towner, ND	52	1	1	52.40	4
GREAT LAKES-ST. LAWRENCE DRAINAGE					
Lake Michigan					
Elkhart Basin:					
Goshen, IN	7		30	7.33	30
Lake Erie					
Clinton River:					
Fraser, MI	13		30	17.96	
Mt. Clemens, MI	13			13.05	29
River Rouge:					
Detroit, (Plymouth Road), MI	15		29	16.46	29
Cuyahoga:					
Old Portage, OH			10	9.7	
			11	12.28	
Chagrin:					
Willoughby, OH	11	11	11	12.71	11
ATLANTIC SLOPE DRAINAGE					
Rockaway:					
[illegible], NJ	5	1	1	6.10	1
Saddle:					
Lodi, NJ	5	Jun	1	7.32	1
Black Creek:					
Florence, SC	10	Jun 28	1	11.7	Jun 29
		6	9	11.2	8
Lumber:					
Lumberton, NC	9		8	9.3	8
Little Pee Dee:					
Galivants Ferry, SC		16	17	9.3	13
Black:					
Kingstree, SC	12	9	11	#12.2	9,10
Congaree:					
St. Matthews 17 NW, SC	115	7	8	[illegible]	7,8
North Fork Edisto:					
Orangeburg, SC	8	1	2	[illegible]	1
		7	8	#8.1	
		10	11	#8.1	10,11
Edisto:					
Givhans Ferry, SC	10	Jun	[illegible]	12.6	
Savannah:					
[illegible], GA	1	12	12	#15.0	12
Clyo, GA	[illegible]	May 27	7	15.9	[illegible]
		9	[illegible]	13.0	16-19
MISSOURI BASIN					
Chariton River:					
[illegible], IA	15	21	22	16.16	22
OHIO RIVER BASIN					
Hocking:					
Enterprise, OH	12	23	24	13.2	23
Wabash:					
Terre Haute, IN	[illegible]	1	1	[illegible]	1
South Chickamauga Creek:					
[illegible], TN	[illegible]	[illegible]	[illegible]	12.4	5

River and station	Flood stage	Above flood stages —dates From—	To—	Crest Stage	Date
	Ft			Ft	
WHITE BASIN					
Cache:					
Patterson, AR	[illegible]	Jun 18	18	[illegible]	Jun [illegible]
Black:					
Black Rock, AR	14	[illegible]	10	17.0	[illegible]
White:					
Augusta, AR	[illegible]	Jun [illegible]	2	[illegible]	Jun [illegible]
			7	14 [illegible]	11
ARKANSAS-RED BASIN					
Walnut:					
Eldorado, KS	18	[illegible]	[illegible]	23.45	[illegible]
Augusta, KS	20	[illegible]	[illegible]	33.8	[illegible]
Winfield, KS	40	[illegible]	[illegible]	35.15	[illegible]
Arkansas City, KS	18	[illegible]	2	23.6	
Whitewater:					
Towanda, KS	[illegible]		4	[illegible]	[illegible]
Chikaskia:					
Blackwell, OK	20	1	1	[illegible]	[illegible]
Little Caney:					
Copan, OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Caney:					
Ramona, OK	[illegible]	[illegible]	6	7.85	5
Bird Creek:					
Avant, OK	20		[illegible]	[illegible]	[illegible]
Sperry, OK	1	[illegible]	[illegible]	21.1	4
Verdigris:					
Altoona, KS	[illegible]		4	25.51	3
Independence, KS	40		[illegible]	42.34	3
Coffeyville, KS	18		7	25.2	3
[illegible], OK	40		[illegible]	38.6	4
Spring:					
Quapaw, OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Neosho:					
Chanute, KS	[illegible]	[illegible]	4	[illegible]	3
Oswego, KS	17	[illegible]	[illegible]	22.35	5
Commerce, OK	[illegible]	[illegible]	7	21.72	3
Arkansas:					
Arkansas City, KS	17	3	[illegible]	[illegible]	[illegible]
RED RIVER BASIN					
Sulphur:					
Hagansport, TX	[illegible]	[illegible]	[illegible]	47.75	3
Naples, TX	22	[illegible]	[illegible]	27.55	7
LOWER MISSISSIPPI RIVER BASIN					
St. Francis:					
St. Francis, AR	18	[illegible]	[illegible]	[illegible]	5
WEST GULF OF MEXICO DRAINAGE					
Neches:					
Alto, TX (near)	30	Jun 27	[illegible]	[illegible]	2
Diboll, TX (near)	30	Jun 24	[illegible]	#12.77	4
Trinity:					
Moss Bluff, TX				[illegible]	Jun 28
Llano:					
Llano, TX (near)	[illegible]		[illegible]	[illegible]	4
Guadalupe:					
Dupont, TX				[illegible]	19

FLOOD STAGE DATA

River and station	Flood stage	Above flood stages -dates		Crest	
				Stage	Date
Sabinal					
Sabinal, TX	16	[illegible]	[illegible]	[illegible]	16
[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15,16
[illegible]	[illegible]	[illegible]	[illegible]	17.7	[illegible]
		[illegible]	[illegible]	19.50	25
[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tilden, TX	[illegible]	[illegible]	[illegible]	17.04	[illegible]
		[illegible]	[illegible]	17.40	Aug 1
Mathis Bridge, TX	[illegible]	[illegible]	[illegible]	19.3	[illegible]
		[illegible]	[illegible]	18.0	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]					
Bakers Crossing, TX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rio Grande:					
[illegible]	[illegible]	[illegible]	[illegible]	18.4	[illegible]
		[illegible]	[illegible]	17.5	[illegible]

RAWINSONDE DATA

Average monthly values

Standard pressure surface mb	ALBANY, NY 1004 MB						ALBUQUERQUE, NM 849 MB					
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	31	89	17.3	15.4	19	.7	31	1,619	18.8	11.7	09	1.8
1000	29	139	16.4	12.9	23	.7						
950	31	554	16.5	11.9	28	3.7						
900	31	1,014	14.5	9.7	29	5.2						
850	31	1,495	11.3	7.1	29	5.7						
800	31	2,000	8.6	2.8	29	6.6	31	2,038	18.0	7.2	15	2.2
750	31	2,533	6.5	-2.6	29	7.8	31	2,588	14.5	4.9	19	1.4
700	31	3,086	3.7	-8.7	28	8.5	31	3,168	11.0	1.7	32	.6
650	31	3,695	.6	-11.5	28	9.1	31	3,782	6.7	-2.4	03	1.8
600	31	4,334	-2.7	-16.9	28	10.4	31	4,434	2.1	-6.6	05	3.6
550	31	5,018	-6.8	-21.2	28	10.4	31	5,131	-2.9	-10.7	06	4.5
500	31	5,755	-11.6	-25.9	28	10.6	31	5,879	-7.9	-15.6	05	3.0
450	31	6,555	-16.9	-30.8	27	12.7	31	6,691	-12.6	-24.5	05	2.5
400	31	7,449	-23.1	-36.3	27	13.1	31	7,581	-18.5	-31.3	05	2.7
350	31	8,395	-30.5	-43.5	27	13.7	31	8,566	-25.5	-37.2	02	2.6
300	30	9,466	-38.9	-49.1	27	16.4	30	9,663	-33.9	-45.3	01	3.1
250	30	10,694	-47.0		28	17.6	30	10,914	-44.1		35	3.2
200	30	12,148	-54.0		29	19.1	29	12,376	-54.9		32	5.7
175	30	13,011	-56.1		28	17.9	27	13,219	-60.0		32	4.9
150	30	13,978	-57.2		28	15.1	27	14,168	-65.4		32	4.1
125	30	15,127	-58.4		28	9.5	27	15,267	-69.0		34	2.7
100	30	16,527	-58.9		29	5.7	27	16,600	-69.5		04	2.1
80	30	17,932	-57.3		32	1.2	27	17,943	-65.5		08	4.0
70	30	18,780	-55.8		04	1.0	27	18,760	-63.3		08	5.5
60	29	19,763	-54.4		08	2.8	27	19,717	-59.6		09	7.0
50	29	20,936	-52.6		08	4.9	27	20,865	-57.0		09	8.8
40	28	22,383	-50.9		09	7.2	26	22,286	-54.1		09	10.3
30	27	24,268	-48.2		09	9.1	23	24,140	-50.7		09	11.4
25	27	25,474	-46.4		08	10.4	22	25,334	-49.4		09	11.7
20	25	26,965	-43.8		09	11.7	21	26,802	-46.8		09	12.2
15	23	28,908	-40.5		08	12.6	19	28,730	-43.8		09	14.2
10	5	31,726	-36.7				14	31,484	-39.0		09	18.1
7												

Standard pressure surface mb	AMARILLO, TX 893 MB						* ANCHORAGE, AK 1008 MB						* ANNETTE, AK 1011 MB					
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	31	1,095	18.7	15.1	20	4.0	31	45	12.6	7.9	18	3.3	31	37	12.5	8.8	13	2.2
1000							30	114	12.7	7.8	18	3.6	30	139	11.8	8.4	14	3.0
950							31	542	11.3	5.9	17	5.2	31	557	9.9	5.5	15	5.5
900							31	991	8.4	4.0	17	3.9	31	1,004	6.5	3.0	15	6.9
850							31	1,462	5.6	2.6	16	3.2	31	1,470	3.3	.5	16	7.6
800	31	1,524	18.0	12.5	22	8.5	31	1,956	2.8	.0	15	2.8	31	1,960	.7	-2.4	16	7.4
750	31	2,042	16.2	8.8	22	6.1	31	2,476	.2	-4.3	16	2.6	31	2,476	-2.2	-6.9	16	6.6
700	31	2,590	13.0	4.8	21	2.9	31	3,027	-2.5	-8.3	16	3.3	31	3,021	-5.2	-8.4	16	6.2
650	31	3,166	9.0	1.7	18	1.7	31	3,612	-5.6	-12.2	16	3.6	31	3,601	-8.2	-13.0	17	5.7
600	31	3,776	5.0	-3.2	15	1.3	31	4,235	-9.4	-18.1	16	3.8	31	4,218	-11.7	-19.6	17	5.9
550	31	4,425	1.0	-7.9	12	2.0	31	4,903	-13.5	-23.0	16	3.8	31	4,880	-15.9	-25.5	17	5.7
500	31	5,120	-3.0	-15.3	12	2.1	31	5,621	-18.3	-27.7	15	3.7	31	5,592	-20.5	-31.9	18	5.3
450	31	5,868	-7.5	-21.2	08	2.7	30	6,399	-23.9	-32.8	14	3.9	31	6,363	-26.0	-37.5	18	4.5
400	31	6,681	-12.6	-26.1	06	2.7	30	7,248	-30.3	-39.4	14	4.0	31	7,205	-32.3	-42.2	18	4.1
350	31	7,569	-19.0	-33.3	04	3.0	30	8,187	-37.6	-44.8	13	4.3	31	8,136	-39.2	-45.5	18	4.3
300	31	8,552	-26.2	-38.8	03	3.6	30	9,229	-46.0		12	5.4	31	9,173	-46.6		18	4.2
250	31	9,645	-34.9	-46.1	01	4.5	30	10,418	-54.9		12	5.8	31	10,370	-50.8		21	5.5
200	31	10,891	-44.6		01	6.4	30	11,843	-52.0		16	3.2	31	11,830	-48.3		22	5.6
175	31	11,592	-50.1		35	6.8	29	12,715	-50.4		16	2.9	31	12,709	-48.4		22	6.4
150	30	12,369	-55.3		36	7.4	30	13,724	-49.5		17	2.3	30	13,725	-48.9		22	6.4
125	30	13,260	-60.1		35	6.8	29	14,919	-49.2		15	1.9	30	14,921	-49.0		21	5.5
100	30	14,285	-66.4		36	6.2	29	16,385	-48.4		14	2.6	30	16,381	-50.2		19	4.5
80	30	15,438	-68.8		03	4.1	29	17,853	-48.3		13	3.1	27	17,821	-50.0		17	3.3
70	30	16,582	-68.8		03	4.1	29	18,734	-48.0		13	2.8	27	18,694	-50.1		16	2.9
60	29	17,928	-65.3		07	4.6	27	19,751	-47.8		11	3.2	27	19,701	-50.1		14	2.4
50	29	19,705	-59.4		08	7.1	27	20,760	-47.0		10	4.0	27	20,894	-49.6		11	3.6
40	29	20,854	-57.0		09	8.6	26	22,439	-46.2		10	5.0	26	22,361	-48.7		10	4.2
30	29	22,276	-54.1		09	9.8	25	24,358	-44.7		09	6.0	24	24,259	-46.5		09	6.5
25	29	23,332	-48.7		09	10.9	25	25,583	-43.3		09	7.4	24	25,473	-45.2		09	7.3
20	29	24,138	-50.7		09	11.8	23	27,092	-41.2		09	8.0	23	26,972	-43.1		09	8.5
15	28	26,809	-46.0		09	12.4	23	28,741	-43.1		09	8.7	20	28,922	-40.0		09	10.1
10	28	30,509	-39.6		09	14.2	10	31,899	-32.8				19	31,717	-35.1		09	12.2
7													5	34,233	-30.6			

Standard pressure surface mb	ATHENS, GA 988 MB						* BARROW, AK 1014 MB						BARTER ISLAND, AK 1010 MB						BETHEL, AK 1006 MB						* BISMARCK, ND 956 MB					
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s

RAWINSONDE DATA

Average monthly values

ABILENE, TX — 548 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	191	14.0	12.2	23	.8
1000					24	1.9
950	31	815	14.5	9.9	24	2.0
900	31	982	13.1	7.4	25	2.7
850	31	1,151	10.6	5.0	27	3.8
800	31	1,964	7.8	1.7	27	4.3
750	31	2,484	5.2	-3.2	27	4.9
700	31	3,005	1.8	-6.3	27	6.5
650	31	3,530	-1.2	-11.4	27	6.9
600	31	4,064	-4.5	-16.0	27	7.4
550	31	4,604	-8.7	-20.4	27	8.8
500	31	5,151	-13.2	-26.4	26	9.8
450	31	5,706	-18.4	-31.5	26	10.2
400	31	6,269	-25.1	-36.8	26	10.6
350	31	6,838	-32.4	-41.5	26	11.6
300	31	9,383	-40.6	-48.8	26	13.4
250	31	10,024	-48.4		24	15.0
200	31	12,054	-53.6		24	16.0
175	31	13,091	-54.2		26	16.2
150	31	14,193	-54.0		26	10.8
125	30	15,066	-55.7		26	8.9
100	30	16,448	-55.8		27	5.2
80	30	17,411	-54.9		27	1.5
70	30	18,768	-53.4		21	.1
60	29	19,764	-52.4		09	1.7
50	29	20,963	-51.0		09	3.7
40	29	22,405	-49.7		09	5.5
30	29	24,297	-47.6		09	8.1
25	29	25,506	-46.2		09	8.7
20	29	26,944	-44.4		08	10.6
15	29	28,284	-39.9		09	11.9
10						
7						

ALBANY, NY — 988 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	140	21.0	19.7	31	.5
1000	24	158	22.0	19.2	34	.8
950	31	600	23.2	16.1	30	3.5
900	31	1,071	20.0	13.5	29	4.9
850	31	1,551	16.2	10.1	29	4.0
800	31	2,075	13.6	4.8	28	4.3
750	31	2,616	10.5	..	26	4.4
700	31	3,188	7.0	-3.9	27	4.0
650	31	3,793	3.4	-7.5	27	4.0
600	31	4,438	-.4	-12.0	28	3.6
550	31	5,130	-4.1	-17.6	26	3.7
500	31	5,868	-8.7	-23.8	27	3.7
450	31	6,684	-13.7	-27.8	27	3.7
400	31	7,582	-19.7	-32.5	27	3.9
350	31	8,562	-25.9	-39.5	27	4.5
300	31	9,664	-34.3	-47.3	26	5.1
250	31	10,903	-44.9		27	5.6
200	31	12,356	-56.7		28	5.3
175	31	13,175	-61.5		30	3.7
150	31	14,121	-65.5		34	4.5
125	30	15,221	-68.2		01	4.8
100	30	16,565	-67.1		04	4.0
80	30	17,922	-63.9		06	4.8
70	30	18,760	-61.4		08	6.3
60	29	19,707	-59.0		09	7.8
50	29	20,869	-56.3		09	9.5
40	29	22,283	-54.0		09	11.0
30	29	24,144	-50.5		09	12.4
25	29	25,368	-48.7		09	13.2
20	29	26,842	-46.5		09	13.8
15	29	28,760	-43.9		09	15.4
10	21	31,493	-39.1		09	19.2
7	5	33,938	-36.0			

BISMARCK, ND — 854 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	13	23.3	21.5	23	1.6
1000	28	145	23.9	20.3	25	2.0
950	31	595	23.2	18.2	27	2.4
900	31	1,065	20.4	14.1	26	2.8
850	31	1,557	17.1	11.3	26	3.0
800	31	2,073	14.1	5.5	26	3.8
750	31	2,615	11.0	1.1	26	4.6
700	31	3,187	7.5	-3.5	26	5.3
650	31	3,793	3.9	-8.1	27	6.8
600	31	4,439	.3	-12.7	27	7.5
550	31	5,130	-3.6	-18.0	26	7.6
500	31	5,879	-7.9	-23.6	26	7.1
450	31	6,691	-13.0	-26.0	27	6.4
400	31	7,578	-19.0	-32.8	27	6.9
350	31	8,562	-25.9	-39.5	27	4.9
300	31	9,656	-34.6	-47.6	27	5.0
250	31	10,903	-44.9		27	4.3
200	31	12,356	-56.7		28	4.3
175	31	13,191	-62.5		30	4.7
150	31	14,131	-67.2		31	4.4
125	31	15,227	-68.0		35	2.5
100	31	16,573	-65.9		01	1.6
80	31	17,936	-63.2		06	3.6
70	30	18,761	-61.2		08	6.2
60	29	19,707	-59.0		09	7.8
50	29	20,876	-56.2		09	9.5
40	29	22,302	-53.3		09	11.0
30	29	24,170	-50.0		09	12.5
25	29	25,368	-48.6		09	13.6
20	29	26,842	-46.5		09	13.2
15	29	28,760	-43.9		09	14.6
10	5	31,545	-37.6			

CHATHAM, MA — [illegible]

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	16	19.1	16.9	23	2.1
1000	28	126	19.1	15.1	25	3.0
950		580	20..	11.3	25	4..
900		[illegible]				
850	31	1,015	15.4	9.0	25	4.8
800	31	1,497	[illegible]	6.4	25	5..
750	31	2,004	9.6	2.1	25	6.3
700	31	2,537	6.7	-2.1	26	7.6
650	31	3,102	3.9	-8.1	26	8.6
600	31	3,701	.9	-11.9	26	9.5
550	31	4,341	-2.3	-15.4	27	9.9
500	31	5,027	-6.4	-19.4	26	10.7
450	31	5,784	-11..	-24.3	26	11.7
400	31	6,587	-16.4	-29.0	26	13.0
350	31	7,442	-22.5	-33.5	26	13.4
300	31	8,412	-29.7	-40.6	26	14.8
250	31	9,469	-38.0	-48.8	26	15.4
200	31	10,721	-47.1		26	19.5
175	31	12,171	-55.5		27	20.5
150	31	13,016	-58.0		27	17.2
125	31	13,986	-59.1		27	13.8
100	31	15,126	-60.2		26	10.4
80	31	16,518	-59.9		27	5.7
70	30	17,916	-58.4		26	2.0
60	29	19,760	-56.9		14	.2
50	29	20,909	-53.6		09	4.6
40	29	22,351	-51.9		09	6.7
30	29	24,230	-48.7		09	9.1
25	29	25,435	-46.9		09	10.2
20	29	26,925	-44.6		09	11.8
15	29	28,824	-41.2		09	12.8
10	5	31,659	-36.5			

[illegible], MONT. — 859 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	1,428	8.6	14.8	..	.
1000						
950						
900						
850	31	1,960	18.5	12.6	14	.4
800	31	2,430	16.0	10.4	17	1.0
750	31	2,943	13.3	7.6	14	1.5
700	31	3,484	9.5	4.4	10	2.1
650	31	4,073	5.5	.0	07	3.2
600	31	4,723	1.0	-3.7	07	3.4
550	31	5,440	-2.9	-9.8	07	3.1
500	31	5,868	-7.1	-14.9	07	2.4
450	31	6,588	-12.0	-21.8	08	1.1
400	31	7,575	-17.7	-29.0	08	1.4
350	31	8,564	-24.0	-35.8	04	1.5
300	31	9,664	-33.2	-43.9	36	1.7
250	31	10,918	-43.4		35	2.6
200	31	12,381	-55.0		36	..
175	31	13,223	-60.7		36	2.8
150	31	14,172	-66.0		34	..
125	31	15,262	-70.6		03	..
100	31	16,583	-71.0		06	4.4
80	31	17,911	-68.4		08	7.1
70	30	18,720	-64.5		08	9.1
60	29	19,667	-62.4		09	10.8
50	29	20,882	-58.9		09	13.0
40	29	22,214	-55.7		09	15.5
30	29	24,065	-51.0		09	14.9
25	29	25,252	-50.0		09	..
20	29	26,720	-47.4		09	15.9
15	29	28,574	-44.8		09	..
10	9	31,381	-40.5			

ADAK, AK — 1007 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	28	30	8.1	7.0	17	2.9
1000	28	112	7.8	6.8	16	4.3
950	28	510	6.5	4.2	16	6.4
900	28	952	4.5	1.6	16	8.3
850	28	1,413	2.9	-2.2	17	9.7
800	28	1,906	.7	-4.2	17	9.9
750	28	2,423	-1.6	-8.9	17	9.3
700	28	2,970	-4.5	-13.0	18	8.5
650	28	3,550	-7.3	-17.6	18	8.3
600	28	4,169	-10.7	-22.2	18	8.2
550	28	4,834	-14.4	-27.4	19	8.1
500	28	5,559	-18.9	-32.3	19	8.1
450	27	6,330	-24.2	-36.7	20	8.5
400	27	7,179	-30.5	-41.1	20	8.0
350	27	8,117	-37.3	-44.7	20	8.3
300	27	9,163	-44.5		21	8.4
250	26	10,376	-50.5		25	7.6
200	26	11,826	-50.5		25	7.4
175	26	12,702	-48.9		25	6.9
150	26	13,714	-49.1		25	6.8
125	26	14,939	-49.7		25	7.4
100	26	16,359	-49.7		24	1.8
80	26	17,833	-49.2		14	.4
70	26	18,704	-49.1		14	1.4
60	26	19,718	-48.8		11	2.3
50	26	[illegible]	-48..		11	3.7
40	26	22,390	-47.4		10	4.5
30	26	24,283	-45.8		09	5.5
25	26	25,311	-44.4		09	6.9
20	26	27,012	-42.7		09	7.7
15	26	28,966	-39.5		09	9.9
10	26	31,776	-35.0			

DAYTON, OH — 982 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	299	17.9	15.8	26	1.2
1000						
950	31	580	19.7	13.9	27	4.5
900	31	1,045	17.5	11.4	29	6.4
850	31	1,532	14.8	7.3	30	6.9
800	31	2,043	11.7	3.8	30	7.8
750	31	2,581	8.9	-2.0	29	8.0
700	31	3,149	5.6	-7.6	30	8.5
650	31	3,752	2..	-10.5	30	9.3
600	31	4,395	-1.2	-16.3	30	9.7
550	31	5,083	-5.4	-18.6	30	10.1
500	31	5,825	-10.3	-22.8	30	10.8
450	31	6,628	-15.5	-29.6	30	12.0
400	31	7,487	-21.4	-36.2	30	12.9
350	31	8,481	-28.3	-41.1	30	14.2
300	31	9,565	-36.7	-48.4	30	14.7
250	31	10,823	-46.0		30	15.8
200	31	12,257	-55.5		30	15.7
175	31	13,100	-59.2		30	15.2
150	31	14,144	-61.6		31	12.7
125	31	15,186	-63.4		31	9.4
100	31	16,559	-62.4		02	4.6
80	31	17,939	-60.3		02	2.5
70	31	18,777	-58.0		05	3.4
60	31	19,753	-56.0		08	4.0
50	31	20,919	-53.6		09	5.9
40	31	22,361	-51.5		09	7.5
30	31	24,242	-48.7		09	9.4
25	31	25,442	-46.9		09	10.8
20	31	26,932	-44.1		08	12.2
15	31	28,874	-41.1		09	14.8
10	5	31,641	-37.4			

DEL RIO, TX — 974 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	314	22.6	21.0	11	3.4
1000						
950	31	573	21.4	19.7	15	7.7
900	31	1,041	19.1	17.0	16	10.0
850	31	1,532	16.7	13.3	16	9.5
800	31	2,048	14.3	7.6	16	8.6
750	31	2,591	11.6	3.5	16	7.4
700	31	3,165	8.2	-.4	17	5.5
650	31	3,775	4.9	-4.3	17	3.9
600	31	4,424	1.0	-8.5	17	3.1
550	31	5,118	-3.3	-12.6	15	2.4
500	31	5,866	-7.8	-17.6	15	2.2
450	31	6,679	-12.6	-22..	16	2.4
400	31	7,568	-18.7	-31.6	14	.5
350	31	8,553	-25.7	-37.2	34	2.6
300	31	9,648	-34.1	-45.7	32	4.3
250	31	10,897	-44.4		31	4.2
200	31	12,357	-55.3		32	4.7
175	30	13,198	-61.0		32	4.0
150	30	14,144	-65.9		33	4.2
125	30	15,239	-70.0		02	5.3
100	29	16,562	-70.4		05	5.1
80	28	17,896	-67.2		07	5.8
70	28	18,708	-64.2		08	7.7
60	28	19,658	-61.4		08	10.2
50	28	20,796	-58.7		08	12.9
40	27	22,208	-56.1		09	15.0
30	27	24,056	-51.6		09	16.1
25	27	25,247	-49.3		09	14.4
20	27	26,718	-47.0		09	14.3
15	27	28,625	-44.4		09	17.0
10	6	31,384	-38.5			

DENVER, CO — 840 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	1,611	17.2	8.3	21	1.7
1000						
950						
900						
850	31	2,029	13..	5.7	25	2.1
800	31	2,583	17.1	1.7	26	1.6
750	31	3,187	12.9	-1.8	26	1.3
700	31	3,785	8.3	-4.5	30	1.5
650	31	4,440	3..	-7.6	31	2.3
600	31	5,137	-2.8	-12.4	32	2.9
550	31	5,884	-8.6	-16.2	31	3.3
500	31	6,694	-13.6	-24.8	30	3.7
450	31	7,579	-19.6	-31.5	29	4.8
400	31	8,560	-26.6	-38.6	29	6.4
350	31	9,651	-35.3	-46.6	29	7.1
300	31	10,895	-45.1		29	9.4
250	31	12,351	-55.4		29	10.2
200	31	13,194	-60.0		28	10.4
175	31	14,147	-64.0		28	9.3
150	31	15,255	-66.8		29	5.8
125	31	16,601	-66.9		29	2.6
100	31	17,959	-63.4		06	1.9
80	30	18,785	-60.8		08	3.5
70	29	19,752	-58.3		08	4.8
60	29	20,908	-55.3		08	6.4
50	29	22,341	-52.9		09	8.0
40	29	24,210	-49.7		09	9.7
30	29	26,891	-45.7		08	11.5
25	29	28,285	-42.5		08	13.7
20	29	29,790	-42.6		09	17.6
15	29	31,577	-37.1		08	19.5

DODGE CITY, KS — 920 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	791	19.7	15.1	19	3.2
1000						
950						
900						
850	31	1,334	21.1	14.6	21	8.4
800	31	1,928	19.5	11.0	22	8.9
750	31	2,549	16.8	7.5	21	8.7
700	31	3,196	13.0	..	21	8.2
650	31	3,874	9.8	-1.6	21	7.5
600	31	4,594	1.2	-11.4	11	..
550	31	5,359	-3.2	-16.8	01	.6
500	31	5,876	-8.1	-22.9	36	1.1
450	31	6,687	-13.1	-29.4	33	1.6
400	31	7,574	-19.4	-35.0	33	3.6
350	31	8,555	-26.8	-39.8	34	4.5
300	31	9,640	-35.2	-47.9	35	5.7
250	31	10,891	-44.7		35	6.8
200	31	12,347	-55.3		34	7.3
175	31	13,191	-59.8		34	6.9
150	31	14,144	-64.0		33	7.0
125	31	15,253	-67.3		33	5.8
100	31	16,596	-67.4		36	3.4
80	31	17,951	-63.9		05	3..
70	31	18,775	-61.1		07	4.8
60	31	19,738	-58.9		08	6.1
50	31	20,891	-55.7		09	7.3
40	31	22,321	-53.4		09	8.6
30	30	24,188	-50.0		09	10.2
25	30	25,384	-48.2		09	10.8
20	30	26,860	-46.1		08	12.3
15	29	28,790	-42.6		09	14.0
10	15	31,577	-37.1		08	19.5

EL PASO, TX — 883 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	1,193	7.4	15.6	13	.6
1000						
950						
900						
850	31	1,518	20.1	12.5	15	2.4
800	31	2,039	17..	10.3	16	2.5
750	31	2,588	13.7	6.7	14	1.7
700	31	3,166	9.9	2.6	09	1.7
650	31	3,778	5.6	-.7	06	2.8
600	31	4,428	1.1	-5.9	06	3.9
550	31	5,123	-3.3	-11.5	07	3.3
500	31	5,871	-8.6	-18.7	07	4.2
450	31	6,683	-12.7	-25.7	07	3.9
400	31	7,572	-18.1	-31.7	05	3..
350	31	8,559	-25.3	-38.3	02	3.3
300	31	9,656	-33.8	-45.7	35	3.5
250	31	10,908	-43.7		34	4.1
200	31	12,369	-55.3		34	5.0
175	31	13,210	-60.9		34	4.3
150	31	14,156	-65.9		36	4.1
125	30	15,253	-69.9		01	3.8
100	29	16,575	-70.3		04	3.7
80	29	17,909	-67.3		07	5.6
70	29	18,722	-64.0		08	7.8
60	29	19,654	-61.4		09	8.8
50	29	20,815	-57.8		09	11.1
40	28	22,233	-55.0		09	12.6
30	28	24,089	-50.8		09	13.0
25	28	25,280	-49.4		09	13.1
20	28	26,780	-47.1		08	13.9
15	27	28,663	-43.8		09	14.2
10						

ELY, NV — 811 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	1,908	12.4	7.2	19	2.6
1000						
950						
900						
850	31	1,527	20.8	9.8	16	1.3
800	31	2,049	17.2	7.5	04	.7
750	31	2,597	13.3	4.7	06	1.1
700	31	3,174	9.3	2.0	06	1.7
650	31	3,785	5.4	-1.0	08	2.6
600	31	4,435	1.2	-4.4	09	3.3
550	31	5,130	-2.7	-10.3	07	3.7
500	31	5,881	-6.8	-16.2	06	4.5
450	31	6,697	-11.4	-23.2	06	4.5
400	31	7,590	-17.5	-29.3	07	4.1
350	31	8,580	-24.3	-36.8	14	4.1
300	31	9,682	-32.8	-44.6	13	3.8
250	31	10,939	-42.9		14	3.8
200	31	12,408	-54.5		11	3.7
175	31	13,249	-60.6		12	3.1
150	31	14,196	-66.0		15	1.9
125	31	15,290	-70.3		03	1.2
100	31	16,610	-71.7		07	4.5
80	31	17,936	-68.2		08	7.1
70	30	18,743	-64.7		08	9.1
60	29	19,692	-61.6		09	9.4
50	28	20,831	-58.9		09	10.7
40	28	22,233	-56.0		09	9.4
30	28	24,178	-51.7		09	8.2
25	28	25,281	-49.1		09	7.4
20	28	26,749	-47.1		09	8.1
15	28	28,678	-44.2		08	10.0
10						

EMPALME, MEXICO — 1,[illegible] MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	12	26.5	22.5	10	1.4
1000	31	142	27.1	22.9	12	2.0
950	31	555	24.8	19.1	15	4.3
900	31	1,030	23.5	13.2	17	4.1
850	31	1,527	20.8	9.8	16	4.3
800	31	2,049	17.2	7.5	04	.7
750	31	2,597	13.3	4.7	06	1.1
700	31	3,174	9.3	2.0	06	1.7
650	31	3,785	5.4	-1.0	08	2.6
600	31	4,435	1.2	-4.4	09	3.3
550	31	5,130	-2.7	-10.3	07	3.7
500	31	5,881	-6.8	-16.2	06	4.5
450	31	6,697	-11.4	-23.2	06	4.5
400	31	7,590	-17.5	-29.3	07	4.1
350	31	8,580	-24.3	-36.8	14	4.1
300	31	9,682	-32.8	-44.6	13	3.8
250	31	10,939	-42.9		14	3.8
200	31	12,408	-54.5		11	3.7
175	31	13,249	-60.6		12	3.1
150	31	14,196	-66.0		15	1.9
125	31	15,290	-70.3		03	1.2
100	31	16,610	-71.7		07	4.5
80	31	17,936	-68.2		08	7.1
70	30	18,743	-64.7		08	9.1
60	29	19,692	-61.6		09	9.4
50	28	20,831	-58.9		09	10.7
40	28	22,233	-56.0		09	9.4
30	28	24,178	-51.7		09	8.2
25	28	25,281	-49.1		09	7.4
20	28	26,749	-47.1		09	8.1
15	28	28,678	-44.2		08	10.0

FAIRBANKS, AK — 994 MB

Standard pressure surface	No. of observations	Geopotential height meters	Temperature °C	Dew Point Temperature °C	Resultant Wind Direction degrees	Resultant Wind Speed m/sec
SFC	31	135	13.6	9.4	34	1.6
1000	5	168	13.7	8.8		
950	31	518	14.3	6.8	28	1.2
900	31	974	11.9	4.1	26	2.4
850	31	1,449	8.3	1.5	24	2.8
800	31	1,947	4.7	-1.2	23	3.1
750	31	2,470	1.1	-4.6	23	3.1
700	31	3,022	-2.8	-8.3	23	3.2
650	31	3,606	-6.1	-14.1	23	3.1
600	31	4,228	-9.8	-17.4	23	3.4
550	31	4,895	-13.7	-23.3	23	4.5
500	31	5,613	-18.1	-28.7	23	5.1

RAWINSONDE DATA

Average monthly values

GLASGOW, MT — 693 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	[illegible]	15.9	11.9	11	1.0
[illegible]						
[illegible]						
900	[illegible]	[illegible]	19.0	7.8	20	2.5
850	31	1,496	[illegible]	[illegible]	[illegible]	[illegible]
800	31	[illegible]	14.0	2.3	27	4.5
750	31	2,552	10.3	-.4	27	7.2
700	31	[illegible]	[illegible]	-3.2	27	6.7
650	31	3,725	2.2	-8.9	27	10.2
600	31	4,368	-1.6	-14.1	27	13.0
550	31	5,055	-6.1	-18.4	27	14.4
500	31	5,794	-10.7	-23.1	27	15.1
450	31	[illegible]	-15.9	-29.0	27	[illegible]
400	31	7,744	-22.3	-35.3	27	17.2
350	31	8,644	-29.4	-41.9	27	[illegible]
300	31	[illegible]	-38.3	-48.9	27	21.3
[illegible]	31	10,750	-47.8		26	23.7
200	31	12,195	-55.2		27	25.4
175	31	13,043	-57.2		27	26.6
150	31	14,016	-58.1		27	[illegible]
125	31	15,162	-58.8		27	13.6
100	31	16,511	-59.1		27	7.1
85	31	17,963	-57.5		28	7.1
70	31	19,811	-55.8		03	.5
50	31	19,796	-54.2		08	2.5
40	31	20,971	-52.3		09	4.2
30	31	22,420	-50.5		09	6.8
20	30	24,310	-47.6		09	7.8
15	30	25,519	-46.2		09	9.1
10	30	[illegible]	-44.0		09	10.1
7	27	28,964	-40.5		09	11.7
10	11	31,756	-35.4			

GRAND JUNCTION, CO — 853 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	1,472	19.0	5.3	12	3.1
[illegible]						
[illegible]						
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	31	[illegible]	21.1	6.1	12	3.3
800	31	2,025	20.7	4.8	13	3.9
750	31	2,580	17.6	2.2	19	1.5
700	31	3,166	13.4	-.6	[illegible]	2.3
650	31	3,785	8.5	-3.0	27	3.0
600	31	4,441	3.2	-5.9	27	2.6
550	31	[illegible]	[illegible]	-2.6	[illegible]	-9.5
500	31	5,794	-10.7	-23.1	27	15.1
450	31	6,696	-13.7	-24.7	[illegible]	3.9
400	31	7,583	-19.0	-32.7	26	4.9
350	31	8,536	-26.3	-39.0	26	5.7
300	31	9,659	-34.8	-46.6	26	7.7
[illegible]	31	10,906	-44.6		27	10.6
200	31	12,378	-55.5		27	11.6
175	31	13,205	-60.1		27	11.2
150	31	14,157	-64.2		27	8.8
125	31	15,262	-67.7		[illegible]	6.2
100	31	16,603	-67.7		27	2.1
85	31	17,963	-63.9		[illegible]	1.6
70	31	19,782	-61.3		09	3.6
50	31	19,769	-54.8		08	4.8
40	31	20,940	-52.6		08	4.0
30	31	22,388	-50.6		09	4.0
20	31	24,274	-48.2		09	7.5
15	31	25,479	-46.7		09	8.4
10	31	26,968	-43.9		09	9.5
7	28	28,917	-40.8		08	11.3
	8	31,706	-36.2			

* GREAT FALLS, MT — 888 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	1,118	14.7	7.5	23	1.8
[illegible]						
[illegible]						
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	31	[illegible]	17.2	3.9	24	3.0
800	31	2,009	14.6	.9	24	3.1
750	31	2,552	10.8	-1.4	24	4.2
700	31	3,122	6.6	-4.7	25	4.6
650	31	3,727	2.5	-7.4	25	8.5
600	31	4,369	-1.9	-11.9	25	11.9
550	31	5,055	-6.6	-16.7	25	13.7
500	31	5,794	-11.3	-22.5	25	14.0
450	31	6,594	-16.6	-29.2	25	15.3
400	31	7,468	-22.8	-35.8	25	16.6
350	31	8,435	-30.3	-40.4	23	19.1
300	31	9,510	-39.0	-49.3	23	21.1
[illegible]	31	10,735	-48.3		25	23.0
200	31	12,178	-55.2		25	23.6
175	31	13,028	-56.9		25	23.8
150	31	14,000	-58.4		25	20.1
125	31	15,144	-59.4		25	14.3
100	31	16,539	-60.0		25	7.7
85	31	17,941	-57.9		25	2.6
70	31	19,786	-56.3		21	.8
50	31	19,769	-54.8		10	1.8
40	28	20,940	-52.6		08	4.0
30	28	22,388	-50.9		09	4.0
20	26	24,272	-48.4		09	7.5
15	26	25,477	-46.6		09	8.4
10	26	26,963	-44.1		09	9.5
7	24	28,903	-40.7		08	11.3
	11	31,690	-35.9			

GREEN BAY, WI — 990 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	210	16.3	12.8	27	.9
[illegible]						
[illegible]						
900	31	563	19.0	9.8	29	1.9
850	31	1,027	16.8	7.4	32	3.2
800	31	1,511	14.1	4.2	30	3.9
750	31	2,020	10.7	1.5	30	5.0
700	31	2,555	7.5	-3.3	30	6.4
650	31	3,120	4.4	-9.0	30	7.2
600	31	3,720	1.0	-13.0	31	7.9
550	31	4,360	-2.2	-16.8	31	9.9
500	31	5,046	-6.3	-21.1	30	10.6
450	31	5,785	-11.2	-25.3	30	11.5
400	31	6,585	-16.5	-30.3	30	13.0
350	31	7,460	-22.6	-36.7	30	14.0
300	31	8,436	-29.7	-42.2	30	14.6
[illegible]	31	9,513	-38.1	-49.1	30	16.0
200	30	10,745	-46.7		30	17.9
175	30	12,197	-54.6		30	19.5
150	30	13,046	-57.7		30	19.6
125	30	14,013	-59.6		30	16.3
100	30	15,151	-60.8		30	11.9
85	30	16,541	-59.9		31	6.4
70	29	17,941	-58.4		33	3.3
50	29	19,786	-56.8		36	2.3
40	28	20,938	-52.5		06	4.1
30	28	22,387	-50.9		08	6.1
20	28	24,272	-48.4		08	7.8
15	28	25,477	-46.6		09	9.1
10	28	26,963	-44.1		09	10.7
7	24	28,903	-40.7		08	12.6
	11	31,690	-35.9			

GREENSBURG, NC — 985 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	275	19.4	17.9	29	.7
[illegible]						
[illegible]						
900	31	587	21.6	14.8	31	3.2
850	31	1,055	19.2	10.8	32	3.9
800	31	1,545	16.4	8.2	30	4.4
750	31	2,058	12.9	5.2	29	5.3
700	31	2,598	9.5	.4	28	6.3
650	31	3,168	6.6	-7.5	29	6.8
600	31	3,773	3.0	-10.2	29	8.0
550	31	4,419	-.2	-14.4	28	9.1
500	31	5,110	-4.0	-18.8	28	9.9
450	31	5,850	-8.0	-22.7	28	9.9
400	31	6,665	-13.7	-27.6	28	9.7
350	31	7,559	-19.8	-31.9	28	10.4
300	31	8,531	-26.8	-39.4	28	10.9
[illegible]	31	9,624	-35.0	-47.8	28	11.4
200	30	10,865	-45.3		28	12.3
175	30	12,318	-56.6		29	12.5
150	30	13,134	-61.7		29	11.2
125	30	14,100	-65.3		30	10.0
100	30	15,209	-65.9		31	5.3
85	30	16,568	-64.6		32	2.5
70	30	17,940	-61.6		05	2.1
50	30	19,771	-59.6		08	3.4
40	29	20,902	-55.0		09	5.7
30	29	22,361	-52.4		09	8.9
20	29	24,213	-49.4		09	10.3
15	29	25,408	-48.0		09	11.5
10	29	26,889	-45.3		09	12.3
7	21	28,817	-42.5		09	14.0

* SAIPAN, MARIANA IS. — 997 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	111	25.1	23.6	09	1.9
1000						
950	31	539	23.5	20.8	09	4.4
900	31	[illegible]	21.9	17.0	10	4.7
850	31	1,504	18.0	13.5	09	4.3
800	31	2,011	15.3	10.8	09	4.2
750	31	2,568	12.8	6.3	09	4.9
700	31	[illegible]	[illegible]	1.9	09	5.1
650	31	3,759	6.3	-2.0	09	4.7
600	31	4,411	2.4	-6.7	09	4.8
550	31	5,110	-1.6	-12.0	09	4.8
500	31	[illegible]	-6.0	-16.2	10	4.2
450	31	6,682	-10.7	-21.9	09	4.6
400	30	[illegible]	-16.3	-28.7	08	4.8
350	30	8,573	-23.0	-36.6	09	4.9
300	30	9,681	-31.4	-43.6	09	4.2
[illegible]	30	[illegible]	-41.7		10	5.3
200	30	12,417	-54.3		07	6.5
175	30	[illegible]	-61.3		07	6.8
150	30	14,198	-69.1		06	8.6
125	29	[illegible]	-76.3		06	9.8
100	29	[illegible]	-78.4		07	10.4
85	29	17,833	-72.1		09	11.5
70	29	18,626	-69.2		09	12.2
50	29	19,555	-65.9		09	11.9
40	28	20,672	-62.0		08	11.9
30	22	22,059	-58.3		09	15.7
20	22	23,894	-53.5		09	19.5
15	19	[illegible]	-52.0		09	21.9
10	17	26,524	-49.5		09	23.0
7	16	28,425	-46.1		09	23.8
10						

HILO, HI — 917 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	10	21.2	19.3	25	1.4
[illegible]	31	154	21.4	18.1	28	.3
950	31	597	18.3	16.2	07	3.0
900	31	1,046	15.3	13.4	07	3.7
850	31	1,543	12.2	10.6	07	3.2
800	31	2,050	10.0	2.1	08	4.2
750	31	2,586	9.0	-8.0	09	5.4
700	31	3,156	5.7	-11.2	11	4.4
650	31	3,756	5.0	-15.4	11	3.0
600	31	4,413	2.0	-19.0	11	2.4
550	31	5,110	-1.8	-21.9	15	1.4
500	31	5,861	-6.3	-25.7	13	1.8
450	31	6,676	-11.9	-30.8	24	4.1
400	30	7,566	-18.8	-35.6	24	6.6
350	30	8,541	-26.3	-41.9	25	8.7
300	30	9,642	-34.6	-49.3	25	12.5
[illegible]	30	10,890	-44.2		26	15.4
200	30	12,330	-55.0		26	18.4
175	30	13,192	-60.9		26	19.0
150	30	14,136	-67.2		26	17.3
125	29	15,220	-72.8		25	11.4
100	29	16,527	-73.1		17	2.7
85	29	17,844	-69.9		11	7.3
70	29	18,644	-67.4		10	9.9
50	29	19,582	-63.8		09	12.3
40	28	20,709	-60.8		09	15.7
30	22	22,107	-57.4		09	18.2
20	22	23,946	-52.7		09	20.8
15	19	25,130	-50.4		09	21.4
10	17	26,595	-48.1		09	22.8
7	15	28,507	-45.2		09	24.4
	17	31,237	-39.9		09	28.5

HUNTINGTON, WV — 968 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	246	17.8	16.1	23	1.2
[illegible]						
[illegible]						
900	31	581	19.8	12.9	27	4.9
850	31	1,046	17.6	10.1	29	4.8
800	31	1,532	14.5	5.8	29	7.0
750	31	2,043	12.0	.0	29	7.4
700	31	2,581	9.0	-3.3	29	8.0
650	31	3,156	5.7	-6.9	29	8.7
600	31	3,752	2.3	-10.1	29	9.4
550	31	4,395	-1.2	-14.7	29	10.1
500	31	5,083	-5.1	-19.0	29	10.3
450	31	5,826	-9.6	-25.4	29	11.3
400	31	6,632	-14.8	-30.2	29	12.0
350	31	7,514	-20.5	-35.7	29	12.7
300	31	8,491	-27.7	-41.5	29	12.3
[illegible]	31	9,578	-36.2	-48.4	29	13.1
200	31	10,817	-45.8		29	14.8
175	31	12,271	-55.5		29	14.3
150	31	13,113	-59.6		30	15.6
125	31	14,070	-62.5		30	11.7
100	31	15,190	-64.2		31	7.8
85	31	16,558	-63.4		32	3.7
70	31	17,937	-61.1		03	2.3
50	31	19,746	-56.6		08	2.9
40	30	20,909	-54.6		09	6.4
30	28	22,341	-52.3		09	8.1
20	28	24,212	-49.5		09	9.4
15	25	25,413	-47.6		09	11.1
10	25	26,896	-45.1		08	12.0
7	23	28,833	-42.2		09	14.5
	7	31,636	-36.7			

* INTERNATIONAL FALLS, MN — 972 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	359	13.1	11.4	27	.6
[illegible]						
[illegible]						
900	31	555	17.6	9.5	28	1.7
850	31	1,017	16.0	6.2	28	3.2
800	31	1,500	12.9	3.3	28	4.2
750	31	2,007	9.7	-.2	29	5.6
700	31	2,540	6.5	-4.6	29	6.8
650	31	3,103	3.4	-10.5	29	8.4
600	31	3,701	.2	-14.1	29	9.4
550	31	4,339	-3.1	-17.5	29	10.9
500	31	5,022	-7.2	-21.1	30	11.6
450	31	5,758	-12.0	-26.5	29	12.5
400	31	6,556	-17.3	-31.8	29	13.6
350	31	7,428	-23.7	-37.4	29	14.8
300	31	8,393	-31.0	-43.4	30	17.4
[illegible]	31	9,464	-39.7	-49.2	29	18.8
200	31	10,687	-48.5		29	22.1
175	31	12,132	-54.7		29	24.8
150	31	12,984	-55.9		30	23.3
125	31	13,962	-57.0		30	18.5
100	31	15,114	-57.9		30	13.6
85	31	16,523	-58.1		30	8.0
70	31	17,934	-56.4		33	4.0
50	31	19,772	-53.6		04	2.6
40	29	20,952	-51.5		07	3.8
30	28	22,404	-49.9		08	5.4
20	27	24,297	-47.3		09	7.8
15	26	25,511	-45.6		09	8.7
10	25	27,009	-42.6		09	9.9
7	24	28,965	-39.2		09	12.1
	9	31,772	-33.8			

* ISLE DEL CISNE — 1013 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	10	26.2	23.4	08	4.3
[illegible]	31	126	25.8	23.3	08	6.0
950	31	577	22.4	20.2	09	9.6
900	31	1,047	19.7	14.6	10	11.7
850	31	1,538	17.2	9.2	10	12.6
800	31	2,054	14.9	3.6	10	12.1
750	31	2,597	12.0	-1.0	10	11.5
700	31	3,171	8.0	-4.2	10	10.8
650	31	3,778	3.0	-7.3	10	9.3
600	31	4,429	1.4	-12.2	10	7.9
550	31	5,124	-2.8	-17.7	11	6.5
500	31	5,873	-7.5	-22.3	11	5.5
450	31	6,686	-12.6	-26.7	12	3.9
400	30	7,575	-18.6	-30.6	09	2.3
350	30	8,561	-25.5	-35.6	01	.8
300	30	9,657	-34.0	-43.4	28	1.6
[illegible]	30	10,907	-44.2		28	4.3
200	30	12,365	-56.1		27	8.6
175	30	13,202	-62.3		27	10.2
150	30	14,139	-68.1		29	9.3
125	29	15,226	-70.7		31	3.8
100	29	16,351	-70.6		06	4.4
85	29	17,875	-69.7		09	8.9
70	29	18,676	-67.1		09	10.6
50	29	19,615	-63.4		09	13.8
40	29	20,744	-60.7		09	15.9
30	28	22,147	-56.7		09	18.6
20	25	23,992	-51.6		09	19.8
15	25	25,182	-49.3		09	21.0
10	25	26,650	-46.1		09	23.6
7	22	28,582	-43.5		09	26.7
	9	31,343	-38.9			

JACKSON, MS — 1004 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	[illegible]	21.6	21.1	21	.7
1000	31	151	22.1	19.7	24	1.1
950	31	[illegible]	22.8	17.5	27	3.2
900	31	[illegible]	19.7	15.1	27	3.9
850	31	1,560	16.3	10.9	27	3.0
800	31	2,075	13.5	5.8	27	3.4
750	31	2,616	10.3	1.8	26	3.4
700	31	3,187	6.5	-.8	27	3.1
650	31	3,792	2.4	-6.0	27	2.6
600	31	4,437	-.6	-9.5	26	2.7
550	31	5,128	-4.3	-16.1	26	2.4
500	31	5,874	-8.7	-21.1	26	1.8
450	31	6,683	-13.8	-25.7	27	1.2
400	31	7,568	-19.7	-33.0	29	2.0
350	31	8,549	-26.8	-39.7	29	2.7
300	31	9,639	-35.4	-47.7	28	3.7
[illegible]	30	10,881	-45.3		27	4.6
200	30	12,334	-56.0		29	5.3
175	29	13,175	-61.3		31	4.2
150	29	14,123	-64.9		34	4.2
125	29	15,226	-68.0		02	4.7
100	28	16,566	-67.7		03	4.6
85	27	17,917	-64.1		07	5.2
70	27	18,741	-61.4		08	6.2
50	27	19,701	-59.4		08	7.6
40	27	[illegible]	-56.9		09	9.5
30	23	[illegible]	-54.0		09	11.5
20	23	[illegible]	-50.4		09	12.7
15	23	25,318	-48.6		09	12.8
10	23	26,793	-46.4		08	13.9
7	23	28,717	-43.5		09	15.6
10	17	31,477	-39.6		09	20.7

JOHN F. KENNEDY INT. AP NY — 1019 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	5	20.4	14.6	25	1.0
[illegible]	28	126	19.9	14.2	30	1.6
950	28	559	18.4	11.9	31	3.5
900	30	1,021	15.5	9.5	30	3.6
850	30	1,504	12.8	6.6	28	4.6
800	30	2,012	10.6	1.5	29	6.3
750	30	2,547	7.7	-2.9	28	8.1
700	30	3,113	4.5	-5.7	28	9.3
650	30	3,714	1.8	-12.3	28	10.5
600	30	4,355	-1.6	-16.7	28	11.3
550	30	5,043	-5.5	-20.7	28	12.2
500	30	5,784	-10.3	-26.1	28	13.4
450	30	6,583	-15.6	-30.8	28	14.2
400	30	7,465	-21.9	-36.1	27	15.7
350	30	8,437	-29.0	-41.2	28	16.4
300	30	9,518	-37.3	-48.3	28	18.9
[illegible]	28	10,753	-46.0		28	21.6
200	30	12,207	-55.1		29	22.7
175	29	13,054	-57.8		29	19.9
150	29	14,019	-60.7		29	15.6
125	29	15,158	-61.7		29	10.1
100	28	16,341	-61.0		29	7.0
85	23	17,929	-58.8		31	2.8
70	27	18,771	-57.4		01	1.8
50	27	19,701	-55.5		07	2.7
40	27	[illegible]	-54.0		09	5.0
30	27	[illegible]	-51.7		09	7.0
20	27	[illegible]	-48.7		08	9.3
15	23	25,424	-47.0		09	9.9
10	23	26,993	-44.9		09	11.7
7	23	28,875	-41.4		09	11.4

JOHNSTON IS., PACIFIC AREA — 1014 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	3	25.6	21.9	08	7.9
[illegible]	31	127	24.4	20.4	08	8.7
950	31	575	20.6	18.0	09	10.1
900	31	1,041	17.5	13.8	09	11.2
850	31	1,528	14.8	9.3	09	9.7
800	31	2,040	12.8	3.6	09	7.8
750	31	2,580	10.6	-3.1	09	5.6
700	31	3,153	9.0	-8.6	09	3.7
650	31	3,764	6.1	-12.4	08	3.3
600	31	4,415	2.6	-17.4	08	2.6
550	31	5,113	-1.5	-20.5	08	1.6
500	31	5,865	-6.5	-25.0	07	.4
450	31	6,681	-11.5	-29.5	27	1.3
400	31	7,573	-17.7	-35.2	28	4.2
350	31	8,562	-24.8	-41.1	28	7.7
300	31	9,662	-33.0	-47.1	28	13.2
[illegible]	31	10,919	-42.6		28	17.2
200	31	12,387	-54.3		27	19.1
175	31	13,230	-60.8		27	19.2
150	31	14,172	-68.3		26	17.1
125	31	15,246	-75.2		26	12.4
100	31	16,538	-73.9		21	1.5
85	29	17,852	-70.4		09	7.2
70	29	18,651	-67.7		09	10.6
50	29	19,585	-64.6		09	12.6
40	28	20,710	-60.5		09	14.5
30	28	22,109	-57.8		09	17.8
20	28	23,944	-53.2		09	20.1
15	25	25,126	-50.9		09	22.3
10	25	26,586	-48.2		09	24.3
7	22	28,493	-45.7		09	28.6
	21	31,227	-40.2		09	31.6
	6	33,630	-39.3			

KEY WEST, FL — 1018 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	3	26.9	23.1	11	1.6
[illegible]	31	158	26.2	22.6	12	2.6
950	31	609	22.7	20.4	13	3.6
900	31	1,080	19.9	15.0	12	3.1
850	31	1,571	17.4

RAWINSONDE DATA

Average monthly values

ANNETTE, ALASKA 1017 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	30	27.4	24.0	04	1.5
1000	31	98	26.0	22.8	04	1.7
950	31	539	22.6	20.1	04	2.3
900	31	1,009	19.9	16.2	04	4.2
850	31	1,497	17.0	12.8	04	3.5
800	31	2,007	14.7	9.6	04	4.1
750	31	2,536	12.0	6.3	04	2.4
700	31	3,086	9.1	1.3	04	1.4
650	31	3,659	5.9	-4.4	04	1.0
600	31	4,259	2.0	-3.2	04	1.4
550	31	4,888	-1.8	-7.8	10	1.7
500	31	5,551	-5.9	-14.3	11	2.3
450	31	6,251	-10.5	-19.9	11	3.1
400	31	6,991	-16.4	-25.4	11	4.1
350	31	7,771	-16.1	-26.9	09	4.5
300	30	8,596	-22.9	-32.3	09	6.1
250	30	9,468	-31.2	-40.3	08	6.5
200	30	10,394	-41.4		07	8.6
150	30	11,414	-53.7		07	13.0
100	29	12,559	-60.6		07	14.1
70	27	14,202	-68.2		07	15.1
50	30	15,278	-75.0		08	14.1
30	27	16,514	-76.2		07	9.1
20	30	17,870	-77.5		08	6.1
10	30	19,448	-67.6		08	3.1
7	31	20,194	-65.0		09	4.6
5	28	20,728	-61.2		08	5.1
3	28	22,123	-58.4		09	8.9
2	27	23,114	-54.9		09	21.5
1	24	25,128	-47.2		09	17.1
.7	14	26,586	-48.3		09	31.1
.5	12	28,496	-44.8		09	34.9
.3	10	31,113	-38.6		09	37.8

ANNETTE, AK 1017 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	5	9.3	6.9	11	1.6
1000	31	95	11.0	5.6	24	1.7
950	31	507	8.7	1.7	22	2.6
900	31	952	5.8	-.6	21	3.8
850	31	1,417	2.8	-2.7	21	4.8
800	31	1,906	-.4	-5.0	19	5.6
750	31	2,422	-3.3	-9.3	21	6.0
700	31	2,966	-5.6	-12.4	20	6.6
650	31	3,544	-8.8	-15.4	20	6.2
600	31	4,161	-12.3	-19.9	21	6.2
550	31	4,821	-16.4	-27.0	21	5.7
500	31	5,531	-21.3	-[illegible]	21	5.3
450	31	6,299	-26.8	-36.5	21	[illegible]
400	31	7,139	-32.8	-42.5	[illegible]	[illegible]
350	31	8,068	-39.7	-46.1	21	10.8
300	31	9,106	-45.6	[illegible]	[illegible]	12.0
250	31	10,311	-48.9	[illegible]	21	10.0
200	31	11,780	-46.6	[illegible]	[illegible]	6.1
150	31	12,666	-46.7	[illegible]	[illegible]	5.5
100	31	13,689	-46.5	[illegible]	21	3.6
70	31	14,849	-46.8	[illegible]	20	2.8
50	31	16,378	-46.6	[illegible]	[illegible]	1.6
30	31	17,860	-46.3	[illegible]	[illegible]	2.3
20	31	19,518	-45.8	[illegible]	14	2.2
10	31	21,776	-45.5	[illegible]	[illegible]	2.6
7	31	22,994	-44.8	[illegible]	[illegible]	3.0
5	31	24,488	-44.3	[illegible]	09	4.2
3	31	26,422	[illegible]	[illegible]	[illegible]	4.7
2	31	27,656	-41.8	[illegible]	09	[illegible]
1	31	29,160	-36.7	[illegible]	[illegible]	7.7
.7	31	31,982	-32.3	[illegible]	[illegible]	[illegible]

LAKE CHARLES, LA 1017 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	5	22.9	21.8	07	.3
1000	31	154	24.3	21.5	21	1.2
950	31	604	22.4	18.3	22	2.9
900	31	1,073	19.8	13.5	20	3.0
850	31	[illegible]	[illegible]	[illegible]	[illegible]	2.9
800	31	[illegible]	[illegible]	[illegible]	[illegible]	2.2
750	31	2,620	10.4	1.4	21	1.9
700	31	[illegible]	[illegible]	[illegible]	[illegible]	1.6
650	31	3,796	3.1	-5.2	24	2.1
600	31	4,441	-.6	-8.1	26	1.8
550	31	5,131	-4.7	-12.3	28	1.5
500	31	5,876	-9.0	-18.0	26	1.4
450	31	[illegible]	[illegible]	[illegible]	[illegible]	.9
400	31	7,570	-19.8	[illegible]	[illegible]	1.2
350	31	8,550	-26.9	-37.1	30	2.0
300	31	9,641	-35.2	-45.8	30	2.8
250	31	10,884	-45.5	[illegible]	30	3.9
200	31	12,336	-56.3	[illegible]	30	4.7
150	31	[illegible]	-61.2	[illegible]	31	4.6
100	31	14,121	-65.4	[illegible]	35	4.8
70	31	15,220	-69.0	[illegible]	03	5.5
50	31	16,554	-68.8	[illegible]	05	5.5
30	30	17,900	-65.3	[illegible]	08	5.3
20	31	[illegible]	-62.8	[illegible]	08	7.1
10	29	19,675	-60.4	[illegible]	08	9.1
7	29	20,817	-58.0	[illegible]	09	11.2
5	29	22,231	-55.6	[illegible]	09	13.3
3	29	24,082	-51.3	[illegible]	09	14.9
2	28	25,273	-49.3	[illegible]	09	14.7
1	27	26,745	-46.6	[illegible]	09	14.7
.7	26	28,667	-43.8	[illegible]	09	16.1
.5	24	31,401	-39.8	[illegible]	08	16.6

LAKE CHARLES, LA 834 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	[illegible]	16.3	4.1	[illegible]	2.3
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	31	2,027	13.6	3.7	[illegible]	1.3
800	31	2,578	12.5	.7	[illegible]	1.3
750	31	3,159	11.0	-3.3	[illegible]	2.9
700	31	[illegible]	[illegible]	-6.4	[illegible]	5.1
650	31	4,427	1.9	-10.6	[illegible]	7.6
600	31	5,121	-3.8	-14.2	[illegible]	8.9
550	31	5,866	-9.2	-20.3	26	8.9
500	31	6,673	-14.7	-27.2	26	8.8
450	31	7,554	-21.0	-33.7	26	10.2
400	31	[illegible]	-28.2	-40.9	26	12.3
350	31	9,613	-38.6	-48.8	26	15.1
300	31	10,852	-45.9	[illegible]	[illegible]	18.0
250	31	12,305	[illegible]	[illegible]	[illegible]	19.0
200	31	13,149	-59.4	[illegible]	[illegible]	19.4
150	31	14,100	-62.5	[illegible]	[illegible]	14.8
100	31	15,225	-64.9	[illegible]	26	[illegible]
70	31	16,585	-66.3	[illegible]	[illegible]	5.7
50	31	17,958	-61.8	[illegible]	23	1.1
30	31	18,791	-59.1	[illegible]	09	1.6
20	[illegible]	[illegible]	-56.7	[illegible]	[illegible]	4.0
10	[illegible]	[illegible]	-54.2	[illegible]	[illegible]	5.7
7	[illegible]	[illegible]	-49.1	[illegible]	09	7.8
5	[illegible]	[illegible]	-47.2	[illegible]	[illegible]	8.8
3	[illegible]	[illegible]	-44.1	[illegible]	[illegible]	10.1
2	[illegible]	[illegible]	-44.6	[illegible]	08	11.4
1	[illegible]	[illegible]	-41.7	[illegible]	08	12.8
.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible], KS 1015 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	36	23.8	20.2	[illegible]	[illegible]
1000	31	164	22.7	19.0	06	7.1
950	31	609	18.9	16.7	07	9.3
900	31	1,072	15.5	13.5	[illegible]	7.8
850	31	1,555	12.2	10.1	07	9.4
800	31	2,063	11.0	-.6	[illegible]	9.5
750	31	2,601	9.5	-7.2	08	8.9
700	31	3,171	7.3	-11.3	09	7.1
650	31	3,777	4.6	-16.3	09	5.5
600	31	4,425	1.3	-19.8	[illegible]	[illegible]
550	31	5,119	-3.1	-23.5	08	2.7
500	31	5,866	-8.2	-27.7	06	.8
450	31	6,676	-13.8	-32.0	27	1.9
400	31	7,559	-20.3	-37.2	26	[illegible]
350	31	8,537	-27.7	-42.7	26	9.3
300	31	9,613	-36.1	-50.1	26	12.3
250	31	10,863	-45.7	[illegible]	26	16.2
200	31	12,318	-55.6	[illegible]	26	21.2
150	31	13,159	-60.5	[illegible]	26	22.2
100	31	14,108	-65.6	[illegible]	25	19.5
70	31	15,205	-69.4	[illegible]	25	11.8
50	29	16,533	-70.1	[illegible]	19	2.5
30	29	17,864	-68.4	[illegible]	10	4.9
20	29	[illegible]	-66.2	[illegible]	10	9.6
10	28	[illegible]	-63.6	[illegible]	09	11.4
7	28	19,611	-63.6	[illegible]	09	11.4
5	28	20,738	-60.2	[illegible]	09	15.8
3	28	22,140	-56.9	[illegible]	09	18.4
2	28	23,984	-52.1	[illegible]	09	19.8
1	25	25,169	-50.6	[illegible]	09	20.9
.7	22	26,626	-48.6	[illegible]	09	21.5
.5	15	28,534	-44.8	[illegible]	09	22.6
.3	10	31,273	-40.8	[illegible]	09	24.1

LITTLE ROCK, AR 994 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	79	22.4	19.6	27	.9
1000	6	182	23.0	[illegible]	[illegible]	[illegible]
950	31	605	[illegible]	16.0	[illegible]	4.8
900	31	1,075	20.5	13.3	[illegible]	4.6
850	31	1,566	16.7	10.8	26	4.3
800	31	2,081	13.7	4.8	26	4.0
750	31	2,622	10.5	.8	26	3.5
700	31	3,194	7.0	-2.6	27	2.9
650	31	3,802	3.4	-7.0	[illegible]	2.4
600	31	4,445	-.2	-13.0	[illegible]	2.1
550	31	5,136	-4.2	-19.0	28	2.1
500	31	5,886	-8.2	-23.8	29	2.5
450	31	6,690	-13.9	-29.0	[illegible]	2.0
400	31	7,574	-20.1	-34.9	29	2.4
350	31	8,553	-27.1	-42.2	32	2.3
300	31	9,642	-35.6	-48.8	33	2.0
250	31	10,884	-45.4	[illegible]	32	3.3
200	31	12,340	-55.3	[illegible]	32	4.3
150	31	13,183	-60.0	[illegible]	33	3.8
100	31	14,135	-65.2	[illegible]	33	5.2
70	31	15,241	-67.4	[illegible]	36	5.0
50	31	16,584	-67.3	[illegible]	03	3.8
30	30	17,939	-64.1	[illegible]	[illegible]	4.5
20	31	18,763	-61.0	[illegible]	07	5.3
10	30	19,726	-58.5	[illegible]	08	6.0
7	30	20,878	-56.5	[illegible]	08	7.6
5	29	22,302	-53.9	[illegible]	09	10.3
3	28	24,163	-50.4	[illegible]	09	11.0
2	25	25,360	-48.2	[illegible]	09	11.9
1	22	26,839	-45.7	[illegible]	09	13.3
.7	15	28,766	-43.1	[illegible]	09	14.1
.5	10	31,514	-38.5	[illegible]	09	17.2
.3	[illegible]	34,008	-34.7	[illegible]	[illegible]	[illegible]

LONGVIEW, TX 1004 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	124	21.8	21.2	[illegible]	1.4
1000	31	161	22.3	19.8	21	2.2
950	31	610	22.5	17.8	23	4.7
900	31	1,079	19.7	14.8	23	4.8
850	31	1,570	16.7	9.9	23	4.3
800	31	2,085	13.7	6.1	22	3.4
750	31	2,626	[illegible]	2.6	22	3.1
700	31	3,197	6.4	-.4	23	2.7
650	31	3,802	2.7	-3.9	25	2.6
600	31	4,446	-.7	-10.2	26	1.5
550	31	5,137	-4.5	-15.3	27	.9
500	31	5,882	-8.9	-21.5	25	.9
450	31	6,690	-14.0	-26.3	28	.9
400	31	7,574	-20.0	-32.9	31	1.2
350	31	8,553	-27.0	-39.6	31	1.6
300	30	9,643	-35.6	-48.0	30	3.4
250	31	10,885	-45.4	[illegible]	27	4.7
200	31	12,339	-55.7	[illegible]	32	4.1
150	31	13,180	-60.5	[illegible]	32	3.6
100	31	14,130	-64.7	[illegible]	34	4.7
70	31	15,234	-68.0	[illegible]	06	4.3
50	31	16,571	-68.8	[illegible]	05	4.2
30	30	17,920	-64.8	[illegible]	08	5.4
20	31	18,741	-61.6	[illegible]	08	4.4
10	30	19,701	-59.9	[illegible]	08	4.3
7	30	20,847	-57.4	[illegible]	09	9.6
5	29	22,268	-54.6	[illegible]	09	11.8
3	28	24,126	-50.9	[illegible]	09	13.3
2	28	25,319	-48.8	[illegible]	09	13.6
1	27	26,793	-46.0	[illegible]	09	14.4
.7	25	28,719	-43.4	[illegible]	09	14.2
.5	17	31,478	-38.8	[illegible]	[illegible]	[illegible]

MEDFORD, OR 969 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	401	14.5	9.6	29	.5
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	31	569	16.5	8.2	28	1.0
900	31	1,030	15.5	7.1	30	.9
850	31	1,513	13.6	5.1	21	.6
800	31	2,023	12.5	-2.0	23	2.6
750	31	2,562	9.7	-4.2	23	3.7
700	31	3,131	6.2	-8.8	23	7.2
650	31	3,733	2.7	-13.0	23	8.5
600	31	4,378	-1.6	-15.8	23	9.8
550	31	5,065	-5.7	-20.3	24	10.9
500	31	5,816	-10.5	-25.8	24	12.1
450	31	6,668	-16.0	-29.2	24	13.1
400	31	7,485	-22.4	-36.5	24	4.9
350	31	8,454	-29.6	-42.7	24	16.8
300	31	9,532	-38.2	-48.7	24	17.8
250	31	10,762	-47.3	[illegible]	24	19.1
200	31	12,212	-54.7	[illegible]	24	20.8
150	31	13,061	-57.2	[illegible]	24	20.7
100	31	14,030	-59.9	[illegible]	24	19.3
70	31	15,164	-61.7	[illegible]	24	13.1
50	31	16,545	-61.3	[illegible]	23	8.1
30	31	17,932	-60.3	[illegible]	21	2.9
20	30	18,759	-58.4	[illegible]	15	1.8
10	31	19,742	-56.9	[illegible]	11	3.3
7	30	20,933	-54.8	[illegible]	10	4.4
5	29	22,337	-52.6	[illegible]	09	6.2
3	28	24,207	-50.4	[illegible]	09	8.3
2	27	25,398	-48.9	[illegible]	09	9.4
1	26	26,873	-46.5	[illegible]	09	11.0
.7	26	28,798	-43.1	[illegible]	09	13.1
.5	22	31,565	-38.0	[illegible]	09	14.6

[illegible], FL 1019 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	4	25.7	22.6	09	.4
1000	31	166	25.7	23.5	12	[illegible]
950	31	617	22.6	20.6	14	[illegible]
900	31	1,087	19.9	15.3	15	2.7
850	31	1,578	17.1	10.9	15	[illegible]
800	31	2,094	14.2	7.5	15	[illegible]
750	31	2,637	11.1	3.5	15	1.6
700	31	3,210	7.6	-.3	15	[illegible]
650	31	3,817	4.1	-4.2	[illegible]	[illegible]
600	31	4,464	.3	-8.7	16	[illegible]
550	31	5,157	-3.7	-13.8	[illegible]	[illegible]
500	31	5,903	-8.5	-17.3	16	[illegible]
450	31	6,707	-13.6	-21.8	[illegible]	[illegible]
400	31	7,599	-19.5	-28.8	05	[illegible]
350	31	8,581	-26.5	-35.0	[illegible]	[illegible]
300	31	9,672	-35.1	-44.1	[illegible]	[illegible]
250	31	10,917	-45.0	[illegible]	04	2.9
200	31	12,370	-56.6	[illegible]	[illegible]	3.9
150	31	13,205	-62.6	[illegible]	04	4.3
100	31	14,145	-66.9	[illegible]	[illegible]	3.7
70	31	15,243	-67.5	[illegible]	03	3.1
50	31	16,587	-67.6	[illegible]	[illegible]	3.4
30	31	17,933	-66.4	[illegible]	[illegible]	6.1
20	31	18,747	-63.8	[illegible]	08	10.2
10	31	19,706	-60.6	[illegible]	08	13.0
7	30	20,837	-58.1	[illegible]	09	15.3
5	29	22,256	-54.6	[illegible]	10	17.0
3	29	24,119	-50.0	[illegible]	09	17.0
2	27	25,318	-47.4	[illegible]	[illegible]	17.2
1	27	26,801	-44.9	[illegible]	09	17.0
.7	21	28,743	-42.3	[illegible]	09	17.2
.5	7	31,499	-38.1	[illegible]	[illegible]	[illegible]
.3	[illegible]	33,932	-34.0	[illegible]	[illegible]	[illegible]

MIDLAND, TX 917 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	874	19.5	16.2	14	.4
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	31	1,036	20.0	17.1	17	3.3
800	[illegible]	1,529	17.8	14.1	18	4.8
750	31	2,047	15.7	10.1	18	6.0
700	[illegible]	2,593	12.6	7.1	16	3.5
650	[illegible]	3,170	9.0	1.4	14	3.8
600	[illegible]	3,781	5.2	-2.7	12	3.4
550	[illegible]	4,430	1.2	-7.7	11	3.3
500	[illegible]	5,125	-3.1	-13.7	[illegible]	3.2
450	[illegible]	5,874	-7.2	-20.9	11	3.4
400	[illegible]	6,687	-12.6	-25.6	10	3.4
350	[illegible]	7,599	-18.5	-31.5	06	3.0
300	[illegible]	8,658	-26.0	-39.1	02	3.8
250	[illegible]	9,858	-34.0	-47.6	01	4.2
200	[illegible]	10,909	-44.[illegible]	[illegible]	36	5.5
150	[illegible]	[illegible]	-54.9	[illegible]	35	8.3
100	[illegible]	13,214	-59.9	[illegible]	36	5.9
70	[illegible]	14,166	-64.9	[illegible]	35	5.4
50	[illegible]	15,266	-69.1	[illegible]	01	4.5
30	[illegible]	16,596	-70.1	[illegible]	05	5.6
20	[illegible]	17,935	-66.0	[illegible]	08	4.8
10	[illegible]	18,751	-63.2	[illegible]	08	4.5
7	[illegible]	19,706	-60.6	[illegible]	08	4.3
5	[illegible]	20,849	-57.8	[illegible]	09	6.7
3	[illegible]	22,267	-54.7	[illegible]	09	9.3
2	[illegible]	24,126	-50.6	[illegible]	09	13.0
1	[illegible]	25,319	-48.7	[illegible]	09	13.6
.7	[illegible]	26,796	-46.1	[illegible]	09	13.0
.5	[illegible]	28,719	-43.8	[illegible]	09	14.3
.3	[illegible]	31,475	-38.8	[illegible]	19	17.6

MONTERREY, MEXICO 954 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	423	21.5	20.5	12	1.9
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	[illegible]	579	20.8	19.8	13	3.9
900	31	1,046	18.1	16.6	14	7.2
850	31	1,536	16.6	12.4	15	8.8
800	31	2,052	15.1	[illegible]	15	8.0
750	31	2,597	12.5	3.3	16	5.4
700	31	3,173	9.0	-.3	17	3.5
650	31	3,784	5.4	-4.4	16	2.9
600	31	4,434	1.3	-9.0	17	2.0
550	31	5,129	-2.9	-12.3	5	2.1
500	31	5,879	-7.3	-18.1	14	2.4
450	31	6,693	-12.3	-22.5	16	2.7
400	31	7,583	-18.2	-28.5	17	1.3
350	31	8,570	-25.2	-35.3	31	.6
300	31	9,668	-33.7	-43.9	29	2.6
250	31	10,922	-43.7	[illegible]	31	4.4
200	31	12,384	-55.3	[illegible]	32	6.5
150	31	13,220	-61.3	[illegible]	32	5.4
100	31	[illegible]	-66.9	[illegible]	34	5.5
70	31	15,254	-70.7	[illegible]	02	4.2
50	31	16,574	-70.9	[illegible]	[illegible]	5.5
30	31	17,908	-67.1	[illegible]	08	6.7
20	31	18,718	-64.7	[illegible]	09	9.8
10	31	19,665	-62.5	[illegible]	09	12.4
7	29	20,790	-59.4	[illegible]	09	14.9
5	28	22,208	-55.9	[illegible]	09	16.2
3	24	24,057	-51.7	[illegible]	10	17.5
2	24	25,247	-49.0	[illegible]	09	17.6
1	24	26,723	-46.5	[illegible]	[illegible]	17.3
.7	17	28,644	-43.7	[illegible]	09	18.3
.5	6	31,422	-39.2	[illegible]	[illegible]	[illegible]

MONETT, MO 961 MB

Standard pressure surface	N	Height	Temperature	Dew point	Resultant Wind Direction	Resultant Wind Speed
SFC	31	[illegible]	[illegible]	17.8	20	1.5
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	[illegible]	593	21.7	[illegible]	24	4.9
900	31	1,063	20.1	13.5	25	8.8
850	31	1,554	17.2	9.6	26	6.9
800	31	2,070	14.4	4.8	26	5.1
750	31	2,613	11.1	1.0	26	3.6
700	31	3,185	7.4	-1.7	27	3.1
650	31	[illegible]	3.9	-6.5	26	2.7
600	31	[illegible]	.1	-12.5	25	2.2
550	31	5,139	-4.4	-18.1	25	2.0
500	31	5,875	-8.6	-22.9	27	1.4
450	31	6,684	[illegible]	-28.7	34	.9
400	31	7,570	[illegible]	-34.6	33	1.4
350	31	8,550	-26.9	[illegible]	35	2.1
300	31	9,642	-33.4	-48.2	01	3.6
250	31	10,888	-45.1	[illegible]	36	3.6
200	31	12,346	-54.7	[illegible]	34	[illegible]
150	31	13,191	-59.2	[illegible]	34	3.8
100	31	[illegible]	[illegible]	[illegible]	35	4.9
70	31	15,259	-66.8	[illegible]	36	4.7
50	31	16,609	-66.1	[illegible]	03	3.5
30	31	17,971	-63.4	[illegible]	06	3.9
20	31	18,797	-60.8	[illegible]	07	5.1
10	31	19,761	-58.3	[illegible]	08	6.0
7	29	20,919	-55.6	[illegible]	09	7.4
5	29	[illegible]	-53.6	[illegible]	[illegible]	[illegible]
3	28	[illegible]	-49.8	[illegible]	09	10.6
2	28	[illegible]	-47.7	[illegible]	09	11.3
1	28	[illegible]	-45.3	[illegible]	09	12.3
.7	22	26,894	-43.3	[illegible]	09	14.0
.5	19	28,830	-41.9	[illegible]	09	[illegible]
.3	19	31,600	-38.0	[illegible]	09	[illegible]

RAWINSONDE DATA

Average monthly values

JULY 1976

NASHVILLE, TN — 997 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	180	19.4	18.3	12	.5
1000						
950	31	595	21.8	15.3	28	3.3
900	31	1,018	19.0	13.1	29	4.9
850	31	1,552	15.6	9.5	29	5.3
800	31	2,064	12.8	4.8	29	5.5
750	31	2,604	10.1	-2.1	29	6.1
700	31	3,175	6.6	-5.6	28	6.0
650	31	3,780	3.2	-9.1	28	5.7
600	31	4,424	-.4	-13.2	28	5.4
550	31	5,115	-4.5	-18.0	28	6.0
500	31	5,859	-9.1	-23.1	29	6.6
450	31	6,667	-14.1	-28.8	29	6.3
400	31	7,551	-20.0	-35.0	28	6.2
350	31	8,530	-27.1	-40.6	29	6.5
300	31	9,620	-35.5	-47.7	29	7.6
250	31	10,863	-45.1		29	8.6
200	31	12,318	-55.5		30	11.0
175	31	13,160	-60.4		30	10.3
150	31	14,111	-63.9		32	7.5
125	31	15,224	-65.8		33	4.8
100	31	16,579	-65.0		36	3.0
80	31	17,947	-62.3		05	3.4
70	31	18,777	-59.8		07	4.3
60	31	19,747	-57.6		08	5.8
50	31	20,905	-55.2		08	7.2
40	30	22,334	-53.4		09	8.5
30	29	24,202	-49.9		08	10.7
25	29	25,208	-47.8		08	11.5
20	29	26,880	-45.6		09	13.2
15	26	28,807	-43.0		09	14.8
10	19	31,579	-38.3		09	18.3
7						
5						

* NOME, AK — 1009 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	5	7.7	4.2	21	.6
1000	30	84	9.8	5.0	22	.4
950	31	507	8.3	2.1	16	1.7
900	31	952	6.1	.1	19	3.2
850	31	1,419	3.4	-3.0	19	4.0
800	31	1,909	1.0	-5.4	20	4.1
750	31	2,425	-1.7	-8.3	20	4.2
700	31	2,971	-4.8	-12.1	20	4.3
650	31	3,551	-8.1	-15.5	21	4.4
600	31	4,169	-11.7	-20.1	21	4.8
550	31	5,126	-16.2	-24.6	22	5.5
500	31	5,843	-20.6	-29.2	23	6.0
450	31	6,614	-26.2	-37.0	23	7.0
400	31	7,456	-32.3	-43.1	23	7.6
350	31	8,387	-39.0	-47.1	23	7.6
300	31	9,426	-45.9		24	7.7
250	31	10,585	-51.0		24	6.9
200	31	11,779	-48.8		22	3.6
175	31	12,359	-47.8		20	3.1
150	31	13,067	-47.6		19	2.5
125	31	13,881	-47.9		17	1.7
100	31	14,881	-47.9		16	1.3
80	31	16,356	-47.6		11	2.5
70	31	17,831	-47.3		11	2.8
60	31	18,720	-47.0		11	3.4
50	31	19,741	-46.8		11	3.4
40	31	20,952	-46.1		11	3.4
30	31	22,437	-45.9		09	4.3
25	31	23,258	-44.0		09	6.2
20	31	25,582	-42.9		08	6.5
15	31	28,325	-40.7		08	6.5
10	31	31,325	-38.1		08	7.7

NORTH PLATTE, NE — 918 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	847	16.5	13.5	13	1.5
1000						
950	31	1,017	20.4	15.3	16	2.9
900	31	1,513	20.4	11.5	20	3.8
850	31	2,035	18.0	8.6	22	4.8
800	31	2,585	14.9	4.1	24	5.5
750	31	3,165	10.8	-.3	24	5.2
700	31	3,779	6.4	-3.9	27	5.5
650	31	4,430	1.8	-8.9	29	4.5
600	31	5,126	-3.1	-13.3	30	5.1
550	31	5,873	-8.2	-18.7	30	5.9
500	31	6,684	-13.5	-25.1	29	6.1
450	31	7,570	-19.5	-31.9	30	6.8
400	31	8,551	-26.7	-38.1	30	7.4
350	31	9,642	-35.3	-46.0	30	9.5
300	31	10,885	-45.2		30	10.9
250	31	12,342	-55.1		30	10.8
200	31	13,186	-59.6		30	7.1
175	31	14,141	-63.5		30	10.9
150	31	15,235	-65.4		30	8.6
125	31	16,613	-65.2		31	4.2
100	31	17,981	-62.0		02	2.1
80	31	18,813	-59.5		07	2.4
70	31	19,783	-57.1		07	4.4
60	31	20,945	-54.5		08	6.0
50	31	22,382	-52.3		09	7.2
40	30	24,257	-49.0		09	9.6
30	30	25,458	-47.6		09	10.6
25	30	26,841	-44.8		09	11.7
20	30	28,881	-41.1		08	12.7
15	25	31,671	-36.5		09	17.8
10	17	34,157	-31.2		09	19.2
7	7	36,531	-27.8			
5						

OAKLAND, CA — 1014 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	30	6	13.9	11.8	26	1.4
1000	30	126	12.9	11.3	26	1.7
950	30	558	15.2	5.5	26	3.0
900	30	1,022	20.9	-.4	28	3.9
850	30	1,513	19.8	-3.6	28	4.9
800	30	2,034	17.1	-6.0	25	2.1
750	30	2,580	13.5	-7.8	22	2.2
700	30	3,156	9.7	-9.8	22	2.9
650	30	3,767	5.7	-12.8	22	3.3
600	30	4,416	1.4	-16.8	22	4.1
550	30	5,110	-3.4	-21.4	23	4.6
500	30	5,857	-8.5	-25.0	23	5.2
450	30	6,665	-14.3	-31.3	23	6.6
400	30	7,547	-21.0	-38.1	23	7.9
350	29	8,524	-28.0	-43.6	23	8.9
300	29	9,609	-36.4	-50.5	23	10.4
250	29	10,834	-46.0		23	12.6
200	29	12,303	-54.7		23	15.0
175	29	13,149	-58.7		23	14.3
150	29	14,109	-62.9		23	13.2
125	29	15,221	-66.3		23	9.4
100	28	16,572	-66.1		22	3.7
80	28	17,931	-63.9		14	2.1
70	28	18,754	-61.5		10	3.2
60	28	19,715	-59.2		09	5.2
50	28	20,865	-56.5		10	6.8
40	28	22,291	-53.8		09	8.2
30	27	24,151	-51.0		08	9.9
25	26	25,341	-49.7		08	11.2
20	26	26,813	-46.7		09	13.4
15	22	28,737	-43.4		09	14.7
10	9	31,489	-37.7			

OMAHA, NE — 968 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	403	20.3	16.2	18	1.3
1000						
950	31	564	21.8	14.7	20	2.5
900	31	1,034	21.3	11.3	23	4.5
850	31	1,527	18.0	8.1	24	4.6
800	31	2,045	15.3	5.0	25	5.2
750	31	2,590	12.0	1.3	26	5.7
700	31	3,164	8.6	-2.6	27	5.4
650	31	3,774	4.7	-6.0	28	5.5
600	31	4,421	.3	-10.0	28	6.1
550	31	5,113	-4.2	-15.5	29	6.3
500	31	5,858	-8.7	-21.5	30	6.8
450	31	6,667	-14.1	-28.7	30	7.9
400	31	7,550	-20.2	-34.1	30	9.2
350	31	8,529	-27.2	-41.0	31	9.1
300	31	9,617	-35.9	-47.6	31	10.4
250	31	10,858	-45.8		31	11.5
200	31	12,310	-55.7		31	12.9
175	31	13,152	-59.7		31	12.4
150	31	14,109	-63.0		31	11.7
125	31	15,225	-64.9		31	10.1
100	31	16,586	-64.3		32	5.2
80	31	17,957	-62.0		01	2.9
70	31	18,788	-60.0		05	3.2
60	31	19,750	-57.9		07	4.1
50	31	20,915	-55.0		08	5.1
40	31	22,351	-52.3		08	7.3
30	30	24,226	-49.3		09	9.1
25	28	25,426	-47.7		09	9.6
20	26	26,908	-45.7		08	10.7
15	25	28,836	-42.8		09	13.7
10	18	31,604	-37.7		09	16.7

PAGO PAGO, AMERICAN SAMOA — 1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	5	27.4	23.0	10	4.8
1000	31	115	25.4	21.6	10	5.3
950	31	565	21.8	19.3	10	5.5
900	31	1,033	18.5	16.2	08	4.8
850	31	1,522	16.2	11.8	08	4.4
800	31	2,037	14.0	8.6	07	3.4
750	31	2,581	12.1	2.1	07	2.6
700	31	3,156	9.1	-3.9	07	1.6
650	31	3,767	5.8	-10.0	07	1.1
600	31	4,418	2.2	-13.7	36	1.0
550	31	5,115	-1.8	-18.8	30	1.2
500	31	5,867	-6.1	-22.6	27	2.2
450	31	6,685	-11.0	-28.6	26	3.6
400	31	7,580	-16.6	-32.9	26	4.7
350	31	8,573	-23.6	-38.8	25	6.4
300	30	9,677	-32.2	-47.1	25	8.3
250	30	10,937	-42.5		25	10.4
200	30	12,405	-54.4		26	9.2
175	29	13,250	-61.2		27	9.8
150	29	14,190	-68.4		27	10.1
125	29	15,266	-74.9		27	9.5
100	29	16,545	-78.4		27	8.0
80	29	17,883	-73.1		27	6.6
70	29	18,625	-68.2		27	6.0
60	27	19,560	-63.6		28	3.9
50	26	20,694	-59.0		32	2.1
40	25	22,109	-54.8		04	1.1
30	25	23,959	-52.7		08	4.7
25	23	25,140	-51.0		09	7.3
20	23	26,663	-47.3		09	9.6
15	20	28,525	-43.9		09	11.4
10	17	31,266	-40.5		08	8.1

* PEORIA, IL — 993 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	200	18.3	15.1	20	.9
1000						
950	31	586	21.3	13.5	26	3.4
900	31	1,048	19.3	10.9	28	5.2
850	31	1,537	16.1	9.1	29	5.4
800	31	2,050	12.7	4.5	29	6.9
750	31	2,590	9.8	-2.1	29	7.2
700	31	3,156	6.6	-7.4	29	7.3
650	31	3,765	3.2	-11.2	30	7.9
600	31	4,408	-1.0	-14.5	31	8.3
550	31	5,098	-5.1	-18.5	31	8.7
500	31	5,841	-9.4	-24.2	31	9.2
450	31	6,647	-14.7	-29.1	31	9.2
400	31	7,528	-21.0	-35.2	31	9.4
350	31	8,504	-28.1	-41.5	31	10.9
300	30	9,588	-36.6	-47.1	31	13.0
250	30	10,827	-45.9		31	14.3
200	30	12,280	-55.3		31	13.9
175	30	13,124	-59.2		31	14.4
150	30	14,084	-61.6		31	12.5
125	30	15,208	-63.7		32	8.7
100	30	16,579	-62.7		33	4.8
80	30	17,960	-60.8		36	2.9
70	30	18,795	-58.7		03	2.9
60	30	19,769	-56.3		07	4.2
50	30	20,934	-53.9		08	5.4
40	30	22,373	-52.0		09	7.7
30	29	24,253	-48.8		09	9.6
25	28	25,452	-47.3		09	10.0
20	28	26,936	-45.2		08	10.8
15	26	28,871	-41.7		08	13.6
10	12	31,639	-38.7		09	18.1

* PITTSBURGH, PA — 974 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	359	16.0	13.9	25	1.8
1000						
950	31	569	17.8	13.6	27	3.8
900	31	1,032	16.0	10.0	28	5.9
850	31	1,516	13.2	6.9	29	7.2
800	31	2,024	10.5	2.3	29	7.9
750	31	2,560	7.8	-2.9	29	9.0
700	31	3,126	4.9	-7.7	29	10.1
650	31	3,728	1.7	-11.8	29	10.4
600	31	4,368	-2.0	-14.9	29	11.1
550	31	5,055	-6.2	-19.7	29	11.9
500	31	5,794	-10.6	-25.7	29	12.4
450	31	6,597	-16.0	-28.6	29	13.3
400	31	7,473	-22.3	-34.0	30	13.8
350	31	8,444	-29.2	-40.7	30	15.7
300	31	9,525	-37.1	-46.5	29	18.6
250	31	10,763	-45.9		29	20.7
200	31	12,218	-54.8		30	19.3
175	31	13,065	-58.0		30	17.8
150	31	14,030	-60.7		30	14.9
125	31	15,160	-62.0		30	9.4
100	30	16,544	-61.6		30	4.6
80	30	17,932	-59.7		35	2.4
70	30	18,771	-57.8		05	2.4
60	29	19,750	-55.9		08	3.8
50	28	20,916	-53.8		09	4.0
40	27	22,356	-52.0		09	7.5
30	25	24,233	-48.9		09	9.5
25	23	25,432	-47.4		09	10.4
20	19	26,919	-44.8		09	11.9
15	14	28,843	-42.1		09	15.2

* PONAPE, CAROLINE IS. — 1004 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	39	28.5	24.3	05	.8
1000	31	76	26.9	23.0	05	.9
950	31	529	23.5	20.8	08	.6
900	31	1,001	20.5	17.5	11	.9
850	31	1,494	17.8	13.7	10	.9
800	31	2,012	15.6	10.4	11	.6
750	31	2,558	12.8	7.5	10	1.3
700	31	3,135	9.6	3.6	11	2.0
650	31	3,748	6.1	.5	09	2.8
600	31	4,401	2.4	-2.6	09	3.6
550	31	5,100	-1.2	-6.8	10	3.4
500	31	5,855	-5.3	-12.0	11	4.4
450	31	6,676	-9.9	-17.7	10	4.9
400	31	7,576	-15.2	-25.8	10	5.1
350	31	8,575	-22.0	-32.6	11	5.6
300	31	9,687	-30.4	-41.7	11	6.3
250	31	10,956	-40.7	-51.3	11	6.2
200	31	12,434	-53.4		09	6.2
175	31	13,281	-60.2		09	6.5
150	31	14,225	-67.7		08	4.0
125	31	15,303	-74.8		07	1.6
100	31	16,584	-76.9		04	1.9
80	31	17,885	-70.9		08	3.7
70	31	18,686	-66.7		08	3.6
60	31	19,626	-63.3		09	2.5
50	30	20,756	-60.4		09	2.6
40	30	22,156	-57.8		09	7.5
30	28	23,985	-54.7		09	19.8
25	26	25,162	-51.5		09	25.9
20	24	26,623	-47.9		09	29.8
15	21	28,540	-44.0		09	34.1
10	11	31,291	-39.8			

PORTLAND, ME — 1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	20	16.0	13.5	26	.9
1000	28	119	16.7	12.8	27	1.4
950	31	543	16.6	10.6	28	2.5
900	31	1,002	14.2	8.6	27	3.1
850	31	1,483	11.5	6.0	26	4.3
800	31	1,988	9.0	1.9	25	5.3
750	31	2,521	6.2	-3.9	26	6.3
700	31	3,084	3.3	-7.7	27	6.5
650	31	3,681	-.1	-10.9	27	7.9
600	31	4,319	-3.2	-16.4	27	9.3
550	31	5,002	-7.2	-20.9	27	10.0
500	31	5,738	-12.0	-25.5	27	11.4
450	31	6,537	-17.3	-31.2	26	12.6
400	31	7,409	-23.5	-37.2	26	13.3
350	31	8,375	-30.5	-42.2	26	14.6
300	30	9,449	-38.0	-48.7	26	16.4
250	26	10,676	-47.5		26	18.3
200	26	12,127	-54.2		27	18.5
175	26	12,979	-56.1		27	17.3
150	26	13,959	-56.8		27	14.9
125	26	15,112	-57.9		27	11.3
100	26	16,518	-57.8		28	5.8
80	26	17,930	-56.3		26	2.0
70	26	18,781	-55.0		34	.2
60	26	19,768	-53.9		09	2.3
50	26	20,944	-52.5		09	4.5
40	26	22,392	-50.8		09	7.2
30	25	24,278	-47.8		09	8.6
25	25	25,486	-46.0		09	9.8
20	25	26,981	-43.7		09	10.9
15	22	28,924	-40.6		09	13.6

* QUILLAYUTE, WA — 1011 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	58	11.6	10.5	15	.4
1000	31	144	11.8	10.2	17	.5
950	31	573	10.5	6.5	21	2.3
900	31	1,022	8.9	2.8	21	3.1
850	31	1,494	6.7	-2.2	21	4.3
800	31	1,991	5.3	-5.3	22	4.9
750	31	2,516	3.1	-8.6	23	6.3
700	31	3,073	.3	-12.7	23	7.6
650	31	3,664	-2.6	-15.2	24	9.5
600	31	4,295	-5.9	-20.8	24	11.3
550	31	4,971	-9.9	-24.6	24	13.2
500	31	5,700	-14.5	-28.9	24	14.1
450	31	6,490	-20.0	-33.5	24	16.3
400	31	7,353	-26.2	-39.6	24	18.8
350	31	8,308	-33.3	-46.2	24	20.0
300	31	9,370	-41.3	-52.2	24	22.8
250	31	10,586	-49.4		24	23.8
200	30	12,031	-52.8		24	24.6
175	30	12,892	-53.4		24	23.7
150	30	13,883	-53.9		24	20.6
125	30	15,052	-54.8		24	16.3
100	30	16,476	-55.5		23	9.6
80	30	17,900	-54.9		22	4.8
70	30	18,755	-54.3		20	2.4
60	30	19,745	-53.8		14	2.0
50	30	20,919	-52.7		10	3.3
40	30	22,365	-51.2		09	4.6
30	29	24,246	-48.6		09	7.1
25	28	25,450	-47.0		09	8.4
20	28	26,939	-44.9		09	9.2
15	26	28,883	-42.0		09	10.1
10						

RAPID CITY, SD — 906 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	966	16.6	12.1	24	.4
1000						
950	27	1,027	17.6	11.6	16	.2
900	31	1,511	16.9	8.8	19	2.7
850	31	2,030	17.1	5.1	21	3.5
800	31	2,578	14.2	.9	22	3.4
750	31	3,157	10.3	-2.8	27	4.0
700	31	3,769	5.8	-5.7	27	5.3
650	31	4,419	1.0	-9.3	28	7.0
600	31	5,112	-4.2	-13.9	28	8.4
550	31	5,856	-9.6	-19.7	28	9.3
500	31	6,663	-14.6	-25.9	28	9.6
450	31	7,545	-20.6	-32.4	28	10.8
400	31	8,522	-28.0	-39.2	27	11.9
350	31	9,607	-36.4	-47.7	27	14.6
300	31	10,845	-46.2		27	17.3
250	31	12,295	-56.0		28	17.5
200	31	13,137	-59.6		28	17.6
175	31	14,096	-61.9		29	15.4
150	31	15,218	-64.1		28	11.0
125	31	16,584	-63.5		29	5.4
100	31	17,961	-61.2		30	1.4
80	31	18,795	-58.7		03	1.2
70	31	19,776	-56.9		07	3.1
60	30	20,930	-54.2		08	5.1
50	30	22,370	-51.6		08	6.3
40	29	24,247	-49.0		09	8.7
30	28	25,448	-47.3		09	9.6
25	28	26,939	-44.7		09	11.0
20	26	28,878	-41.9		09	12.6
15	24	31,629	-37.3			

ST CLOUD, MN — 979 MB

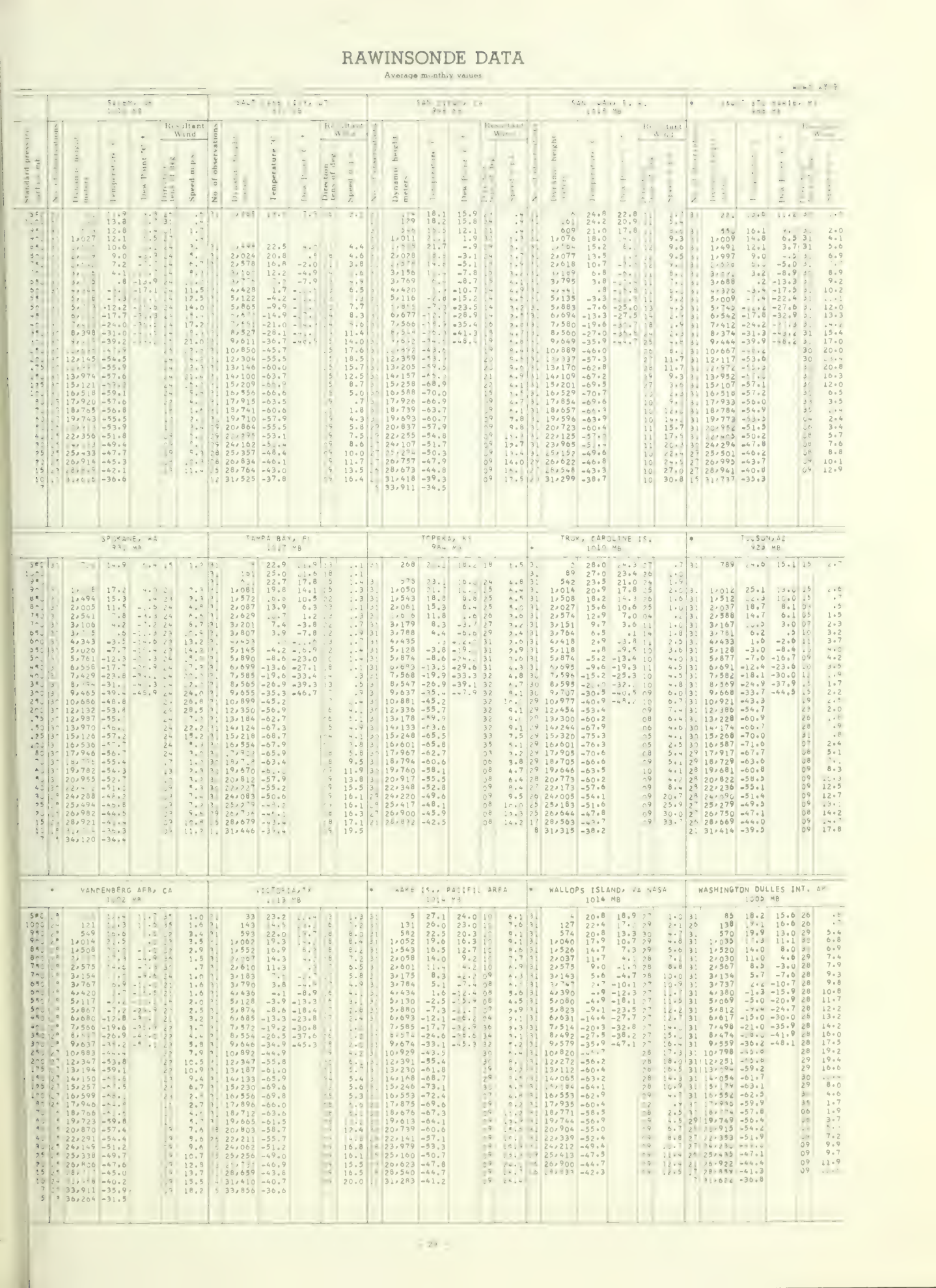
Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	316	14.5	12.9	36	.3
1000						
950	31	572	19.5	11.2	21	.9
900	31	1,037	18.2	4.5	26	3.1
850	31	1,524	15.4	4.4	29	3.3
800	31	2,036	12.0	.7	29	4.2
750	31	2,573	9.2	-6.0	29	5.6
700	31	3,142	6.0	-8.1	29	7.4
650	31	3,745	2.3	-11.4	30	8.5
600	31	4,387	-1.2	-16.5	30	8.6
550	31	5,075	-5.8	-19.9	30	10.8
500	31	5,816	-10.6	-25.6	29	11.7
450	31	6,618	-16.1	-31.0	30	13.0
400	31	7,494	-22.2	-37.3	30	14.4
350	31	8,464	-29.6	-42.9	29	15.9
300	31	9,543	-37.9	-49.1	30	18.7
250	31	10,774	-47.1		30	22.0
200	31	12,224	-55.3		30	24.6
175	31	13,069	-58.0		30	21.6
150	31	14,036	-60.0		30	16.9
125	31	15,171	-61.0		30	13.6
100	31	16,557	-60.4		31	7.6
80	31	17,952	-58.6		33	3.5
70	31	18,795	-56.8		02	2.2
60	31	19,776	-55.2		06	2.8
50	31	20,945	-53.3		06	3.7
40	31	22,389	-51.1		08	4.8
30	30	24,271	-48.4		08	8.6
25	30	25,477	-46.5		09	9.2
20	30	26,967	-44.2		09	10.7
15	28	28,911	-40.7		08	11.4
10	19	31,700	-36.6			

* ST PAUL ISLAND, AK — 1008 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature C	Dew Point C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	26	10	5.6	4.4	15	1.6
1000	22	94	5

RAWINSONDE DATA

Average monthly values



RAWINSONDE DATA

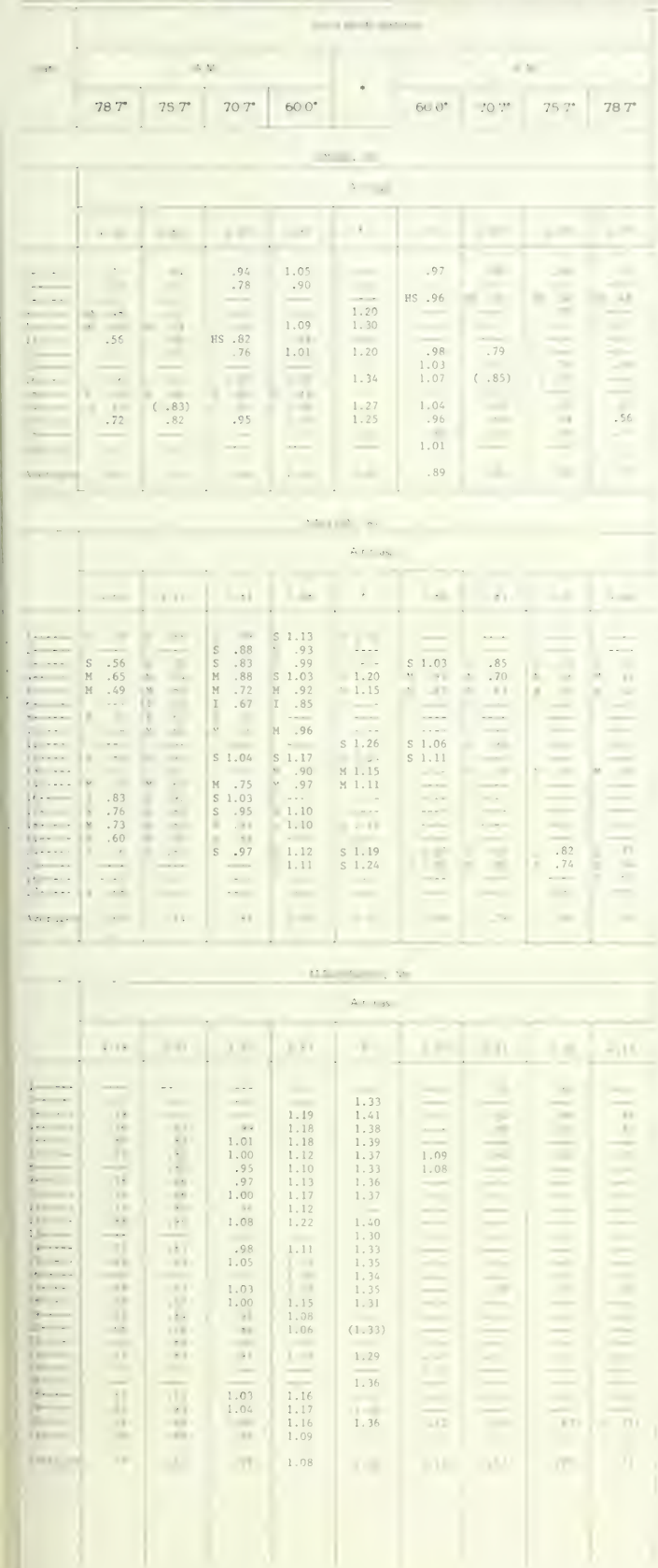
Average monthly values

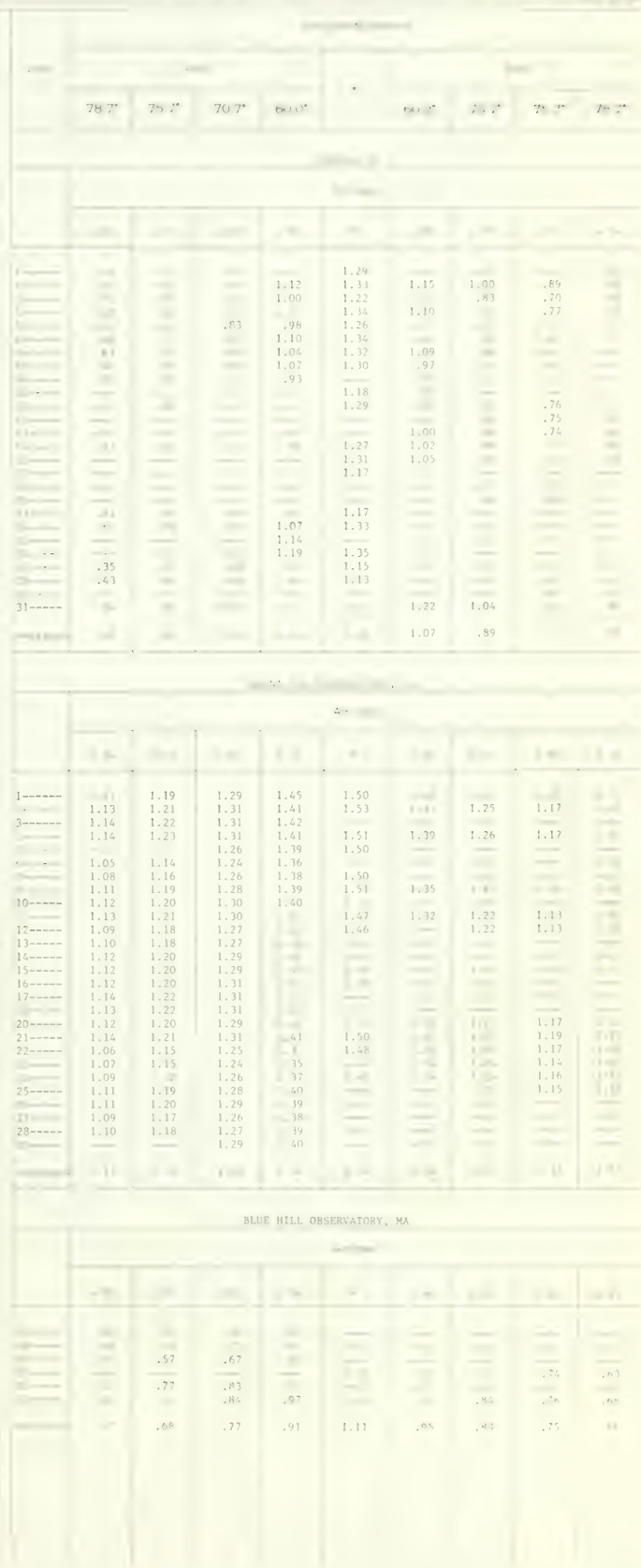
JULY 1976

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point (°C) +	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
MAYPORT, FL 1012 MB						
SFC	31	54	28.0	24.0	24	3.1
1000	31	144	29.1	23.3	25	2.3
950	31	594	23.1	17.9	27	3.3
900	31	1,065	20.7	15.0	27	4.3
850	31	1,557	17.4	12.0	26	4.4
800	31	2,074	14.4	7.4	26	4.8
750	31	2,616	11.2	2.8	25	4.8
700	31	3,189	7.8	-1.9	25	4.9
650	31	3,797	4.3	-8.1	25	4.8
600	31	4,444	.5	-11.6	25	4.3
550	31	5,137	-3.4	-16.1	25	4.2
500	31	5,883	-7.7	-20.4	25	3.5
450	31	6,697	-12.9	-26.9	25	2.9
400	31	7,585	-19.0	-32.3	26	2.4
350	31	8,568	-25.9	-37.5	26	1.7
300	31	9,663	-34.2	-46.4	29	1.4
250	31	10,913	-44.4		29	1.6
200	31	12,370	-56.0		33	2.3
175	31	13,207	-62.0		33	3.2
150	31	14,149	-67.1		31	3.4
125	30	15,245	-68.1		28	3.3
100	30	16,569	-66.5		23	2.5
80	30	17,948	-63.7		17	4.6
70	30	18,772	-61.8		09	6.8
60	30	19,731	-59.6		04	9.3
50	30	20,888	-56.6		09	11.6
40	30	22,304	-53.9		09	12.8
30	28	24,168	-50.7		09	13.0
25	28	25,305	-48.1		08	13.4
20	27	26,847	-45.9		08	13.3
15	26	28,770	-42.8		09	10.4
10	11	31,291	-38.9			
NINNEMUCCA, NV 869 MB						
SFC	31	1,912	14.5	-.1	15	.8
1000						
950						
900						
850	31	1,500	17.9	2.1	24	1.1
800	31	2,021	18.0	-.3	20	1.8
750	31	2,570	14.2	-2.4	19	2.8
700	31	3,147	10.1	-6.8	23	4.3
650	31	3,759	5.7	-8.5	22	6.8
600	31	4,408	1.0	-11.3	22	9.3
550	31	5,101	-4.4	-14.3	22	10.8
500	31	5,845	-9.4	-22.4	23	10.6
450	31	6,651	-14.9	-28.9	23	10.9
400	31	7,532	-21.1	-35.1	23	10.3
350	31	8,506	-28.3	-41.5	24	10.2
300	31	9,590	-36.8	-48.7	24	15.9
250	31	10,827	-46.1		24	18.4
200	31	12,282	-54.6		24	20.9
175	31	13,129	-58.4		24	19.7
150	31	14,091	-62.2		24	16.1
125	30	15,217	-65.1		25	11.6
100	30	16,577	-64.6		26	5.0
80	30	17,945	-62.4		17	1.6
70	30	18,773	-60.4		14	3.5
60	30	19,740	-57.8		16	3.7
50	30	20,897	-55.4		09	5.5
40	30	22,330	-52.9		09	6.8
30	28	24,197	-50.3		09	9.9
25	28	25,393	-48.2		09	9.8
20	27	26,874	-45.4		08	12.3
15	23	28,805	-42.5		09	13.8
10	10	31,594	-36.5			
WINSLOW, AZ 853 MB						
SFC	31	1,497	18.5	2.3	17	1.6
1000						
950						
900						
850	29	1,518	19.3	10.3	18	1.6
800	31	2,039	20.2	7.3	27	2.4
750	31	2,593	16.8	4.3	30	2.3
700	31	3,177	12.4	1.6	32	1.0
650	31	3,795	7.7	-.7	13	.6
600	31	4,449	2.6	-3.9	12	2.0
550	31	5,146	-2.8	-8.3	13	2.5
500	31	5,895	-7.9	-13.8	12	2.9
450	31	6,707	-12.7	-22.7	16	1.8
400	31	7,596	-18.4	-30.2	17	1.6
350	29	8,582	-25.4	-37.1	17	1.7
300	28	9,679	-33.9	-45.7	20	1.8
250	28	10,929	-44.2		23	3.2
200	28	12,390	-54.9		26	4.9
175	28	13,233	-60.6		27	4.2
150	28	14,180	-65.9		26	4.2
125	27	15,274	-69.6		28	1.8
100	27	16,603	-69.7		01	.1
80	27	17,941	-66.7		09	3.8
70	27	18,757	-62.9		09	5.9
60	26	19,712	-60.1		09	7.0
50	26	20,857	-57.4		09	8.9
40	26	22,278	-54.1		09	10.8
30	26	24,137	-51.3		09	11.5
25	27	25,333	-49.6		09	11.9
20	27	26,796	-47.2		09	13.6
15	26	28,717	-43.2		09	14.4
10	16	31,453	-37.7			
YAKUTAT, AK 1013 MB						
SFC	30	12	9.7	8.8	07	.4
1000	30	117	11.6	8.3	04	.2
950	30	545	10.3	5.6	19	.5
900	30	994	8.0	2.4	16	.7
850	30	1,463	5.1	-1.1	14	1.2
800	30	1,956	2.4	-4.4	12	1.1
750	30	2,476	-.3	-7.5	08	1.9
700	30	3,025	-2.8	-12.8	09	2.6
650	30	3,610	-5.7	-16.5	09	3.0
600	30	4,233	-9.4	-21.7	09	4.1
550	30	4,901	-13.4	-24.8	09	3.9
500	30	5,619	-18.3	-29.1	09	5.0
450	30	6,398	-23.8	-33.4	08	5.1
400	30	7,247	-30.3	-39.7	08	6.5
350	30	8,185	-37.7	-45.3	07	7.2
300	30	9,226	-46.2		07	7.7
250	30	10,416	-53.9		08	6.6
200	30	11,855	-50.7		09	2.1
175	30	12,728	-49.3		14	.5
150	30	13,741	-48.8		16	.8
125	30	14,940	-48.6		16	1.5
100	30	16,409	-48.3		17	1.6
80	30	17,888	-48.6		15	1.6
70	30	18,767	-48.7		14	2.4
60	30	19,782	-48.1		13	2.5
50	30	20,986	-47.5		10	2.9
40	30	22,464	-46.6		10	4.4
30	29	24,379	-45.2		09	6.0
25	29	25,601	-43.7		10	7.5
20	29	27,108	-41.4		09	7.5
15	28	29,087	-37.4			
10	6	31,933	-32.0			
YAP, CAROLINE IS. 1008 MB						
SFC	31	14	27.1	24.2	26	1.1
1000	31	83	26.0	23.4	26	1.5
950	31	535	23.6	20.7	26	2.9
900	31	1,006	20.2	17.0	27	2.9
850	31	1,499	17.7	13.9	27	1.9
800	31	2,016	15.3	11.1	30	1.3
750	31	2,562	12.7	7.1	28	.7
700	31	3,139	9.5	3.7	22	.5
650	31	3,752	6.1	.5	18	.6
600	31	4,404	2.2	-3.1	11	.8
550	31	5,103	-1.6	-8.3	11	1.4
500	31	5,856	-5.7	-13.4	09	1.4
450	31	6,670	-10.3	-18.5	09	2.5
400	31	7,574	-15.5	-26.3	08	3.5
350	31	8,571	-22.0	-33.1	09	4.6
300	31	9,682	-30.7	-42.3	08	5.6
250	31	10,949	-41.2		08	7.5
200	31	12,424	-53.7		07	11.6
175	31	13,269	-60.6		07	13.8
150	31	14,211	-68.4		07	14.9
125	31	15,285	-75.4		07	14.1
100	31	16,567	-76.2		08	9.3
80	31	17,870	-70.9		08	9.4
70	30	19,602	-64.5		09	9.4
60	30	20,720	-61.3		09	8.3
50	29	23,951	-53.9		09	10.7
40	27	25,129	-51.1		09	15.4
30	20	26,598	-47.6		09	21.0
25	18	28,521	-43.5		09	24.7
20	13	31,262	-38.8			
YCOLD BAY, NV 880 MB						
SFC	31	1,198	17.3	4.3	28	.9
1000						
950						
900						
850	31	1,500	23.6	6.0	24	1.3
800	31	2,017	20.5	3.4	21	4.9
750	31	2,581	16.4	.5	21	4.4
700	31	3,163	11.9	-4.1	19	4.9
650	31	3,768	7.3	-9.2	17	5.1
600	31	4,431	2.1	-8.7	17	5.8
550	31	5,127	-2.9	-13.8	17	4.6
500	31	5,876	-7.6	-19.5	19	3.3
450	31	6,687	-13.0	-26.4	21	4.1
400	30	7,574	-19.4	-33.7	22	5.3
350	29	8,554	-26.8	-39..	23	6.9
300	29	9,648	-35.1	-46.4	23	9.0
250	29	10,892	-44.3		22	11.2
200	29	12,353	-54.6		22	12.7
175	29	13,198	-59.6		22	12.7
150	29	14,157	-64.1		23	9.4
125	28	15,263	-67.7		23	5.4
100	28	16,602	-68.6		21	3.1
80	27	17,948	-65.6		13	2.2
70	26	18,765	-61.9		10	3..
60	26	19,724	-59.9		10	5.2
50	26	20,870	-56.8		11	6.8
40	26	22,292	-54.5		09	7.4
30	26	24,146	-51.8		09	9.9
25	23	25,333	-50.0		09	10.9
20	23	26,799	-48.0		09	12.2
15	23	28,708	-45.1		09	14.3
10	9	31,440	-40.1		09	16.6

SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun.





BLUE HILL OBSERVATORY, MA

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

JULY 1978

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
ALBUQUERQUE NM	623	535	734	715	691	582	721	705	705	696	682	696	618	637	671	685	693	697	696	686	695	674	647	693	675	678	611	662	734	---	537	674
BISMARCK ND	736	627	425	697	456	730	541	510	650	583	443	618	670	624	562	765	708	696	682	592	693	671	686	694	615	693	477	686	674	537	606	616
CARIBOU ME	148	431	186	624	624	694	331	270	457	695	304	77	78	160	482	568	---	516	644	680	684	704	692	150	511	625	392	263	671	624	216	446
EL CENTRO CA	767	760	715	736	715	700	695	581	687	670	466	678	686	683	548	546	694	700	670	701	670	697	694	678	647	530	658	585	590	572	708	638
EL PASO TX	521	664*	722	634	505	600	713	737	717	714	650	631	591	565	499	472	677	704	681	643	562	704	611	434	678	567	484	549	606	658	693	644
ELY NV	740	766	774	---	767	768	719	744	746	739	561	679	730	543	511	548	704	678	496	667	624	720	54	429	508	461	471	346	401	479	422	576
FRESNO CA	740	740	726	735	738	745	720	731	717	718	711	732	705	678	574	655	680	699	705	707	714	643	53	675	658	652	583	641	645	615	371	674
GENEVA NY	419	371	385	540	702	708	649	361	717	604	390	130	101	435	633	251	624	605	612	465	481	722	288	484	718	629	355	622	81	105	---	458
GRAND JUNCTION CO	728	733	725	768	700	702	509	702	737	748	655	577	708	728	743	734	578	498	491	618	726	721	700	702	594	430	697	693	650	665	537	680
JOHNSTON ISLAND PAC	633	571	496	578	598	644	665	654	617	655	646	652	658	587	629	680	409	484	698	621	651	592	664	576	621	672	611	533	559	605	648	611
LAS VEGAS NV	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MADISON WI	742	552	701	656	688	655	488	706	613	611	685	712	666	639	510	639	622	656	165	295	651	404	565	679	660	349	625	265	491	535	617	575
MAJURO PAC	576	562	658	619	472	581	539	241	530	584	505	419	144	545	365	80	438	380	407	250	269	222	380	364	660	260	102	434	615	501	462	398
MIAMI FL	443	562	629	690	748	641	226	337	166	371	413	678	573	581	670	663	544	607	518	614	338	481	588	588	645	563	587	633	556	---	336	526
NASHVILLE TN	675	524	147	361	647	343	623	572	460	566	611	616	672	565	582	342	720	624	664	544	601	653	472	601	614	634	367	378	519	411	366	534
OAK RIDGE TN	626	538	86	230	464	387	396	455	407	582	521	457	666	642	413	245	603	648	603	377	522	389	522	606	577	583	416	533	429	301	431	475
PAGE AZ	681	751	708	715	690	731	686	708	710	733	646	443	541	592	689	513	468	604	624	670	697	745	624	570	680	356	524	605	548	580	592	620
PHOENIX AZ	702	724	724	699	690	694	669	672	629	653	666	561	604	667	678	625	471	624	606	662	550	665	645	640	665	611	597	583	548	483	579	624
SEATTLE TACOMA WA	745	741	365	542	647	566	276	461	454	417	342	388	668	702	687	666	617	710	609	598	462	675	626	581	723	255	727	687	541	516	660	594
STERLING VA	534	654	405	544	670	528	416	467	636	438	324	566	619	434	529	445	644	686	627	622	518	146	623	483	688	662	446	544	---	334	514	549
TALLAHASSEE FL	362	526	485	674	441	430	514	488	660	515	416	438	565	677	545	660	583	416	601	537	423	455	562	533	431	581	434	498	381	447	567	479

NET RADIATION

Net radiation in langleys per day [illegible] at Point Barrow, Alaska

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .	282	72	161	230	[illegible]	[illegible]	298	185	284	[illegible]	204	16	[illegible]	268	189	189	145	109	268	[illegible]	[illegible]	228	81	[illegible]	[illegible]	343	[illegible]	138	[illegible]	71	[illegible]	134

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals and monthly average ([illegible] A.) at Point [illegible]

Date. . . .	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys.																																

[illegible]

TOTAL OZONE DATA

These [illegible] total ozone data are obtained from measurements made with a Dobson ozone spectrophotometer, and the applicable [illegible] as listed [illegible]. The data is corrected to the [illegible] as defined in the August 1962 WMO circular entitled "PUBLICATION OF DATA FROM METEOROLOGICAL RESEARCH [illegible] OZONE DATA."

Units: Milli-atm-cms

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
[illegible]																																

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES: Dates in the table apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

+ And also on an earlier date or dates.
D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile data can be evaluated.

B Number of days maximum 21.1°C. or above for Alaskan Stations.
Y Peak Gust.
+ And also on an earlier date or dates.
U Indicates Urban site.
R Indicates Rural site.
Ø Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publication.

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters

$F. = \frac{9}{5} \times C. + 32$

1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

° Includes crop damage.
C Crop damage.
* No occurrence of storms or unusual weather phenomena reported.
@ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
Ø For breakdown of "All Others," and for detailed listing of other storms, see the Environmental Data Service, NOAA, monthly publication STORM DATA.
‡ No Storm Data Report received for this State.
<> Report Incomplete.
† Storm damages are placed in categories varying from 1 to 9 as follows:
1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5 Million
7 $5 Million to $50 Million
8 $50 Million to $500 Million
9 $500 Million to $5 Billion.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1/ Flooding continued at the end of the month.
NA Not available.

FLOOD STAGE DATA:

Highest Stage Observed
1/ Continued at end of month
Highest Stage of Record
E Estimated
P Provisional (Flood Stage)
U Unknown

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
+ Observations for these stations are scheduled at 0000 G.C.T.
† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

REFERENCE NOTES

SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

()	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
*	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeterminable
BD	Blowing Dust	F	Fog	I	Intense Haze-indeterminable		
BN	Blowing Sand	GF	Ground Fog	K	Smoke	N	Sand
D	Dust	H	Haze	KI	Intense Smoke	S	Slight Haze-indeterminable
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		

SOLAR RADIATION TOTALS: Langley is the unit used to denote one gram calorie per square centimeter.

* Values with an asterisk are interpolated.
Data are only for those stations equipped with Eppley Model II sensors.

NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded $\Omega\ \Omega\ \Omega$) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code $_{\lambda}$S designates the type of measurement made.

DESCRIPTION OF CHARTS

CHART I. A. NORMAL DAILY AVERAGE TEMPERATURE (°F. 1941-70) FOR MONTH. B. TEMPERATURE DEPARTURE FROM 30-YEAR MEAN (°F. 1941-70) FOR MONTH. Chart I-A is reproduced from monthly normals maps prepared at the National Climatic Center. Chart I-B is a reproduction of monthly chart appearing in "Weekly Weather and Crop Bulletin," a publication of Environmental Data Service.

CHART II. A. TOTAL PRECIPITATION. Chart II. A. is a reproduction of monthly chart appearing in "Weekly Weather and Crop Bulletin."

CHART II. B. PERCENTAGE OF NORMAL PRECIPITATION. Chart II. B. is a reproduction of monthly chart appearing in "Weekly Weather and Crop Bulletin."

CHART III. TRACKS OF CENTERS OF ANTICYCLONES AT SEA LEVEL.

CHART IV. TRACKS OF CENTERS OF CYCLONE AT SEA LEVEL. Centers which can be identified for 24 hours or more are tracked in these charts. Semi-permanent features such as the Great Basin and Pacific Highs and Colorado and Mexico Lows are not shown. The 7:00 a.m., e.s.t., positions are shown by open circles, with the intermediate positions at 6-hour intervals shown by X's. The date is given above the circle and the central pressure to whole millibars below. A dashed track indicates a regeneration rather than actual movement to the next position. Squares indicate position of stationary center for period shown beside it.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), July

B. Temperature Departure from 30 - Year Mean (°F 1941-70), July 1976

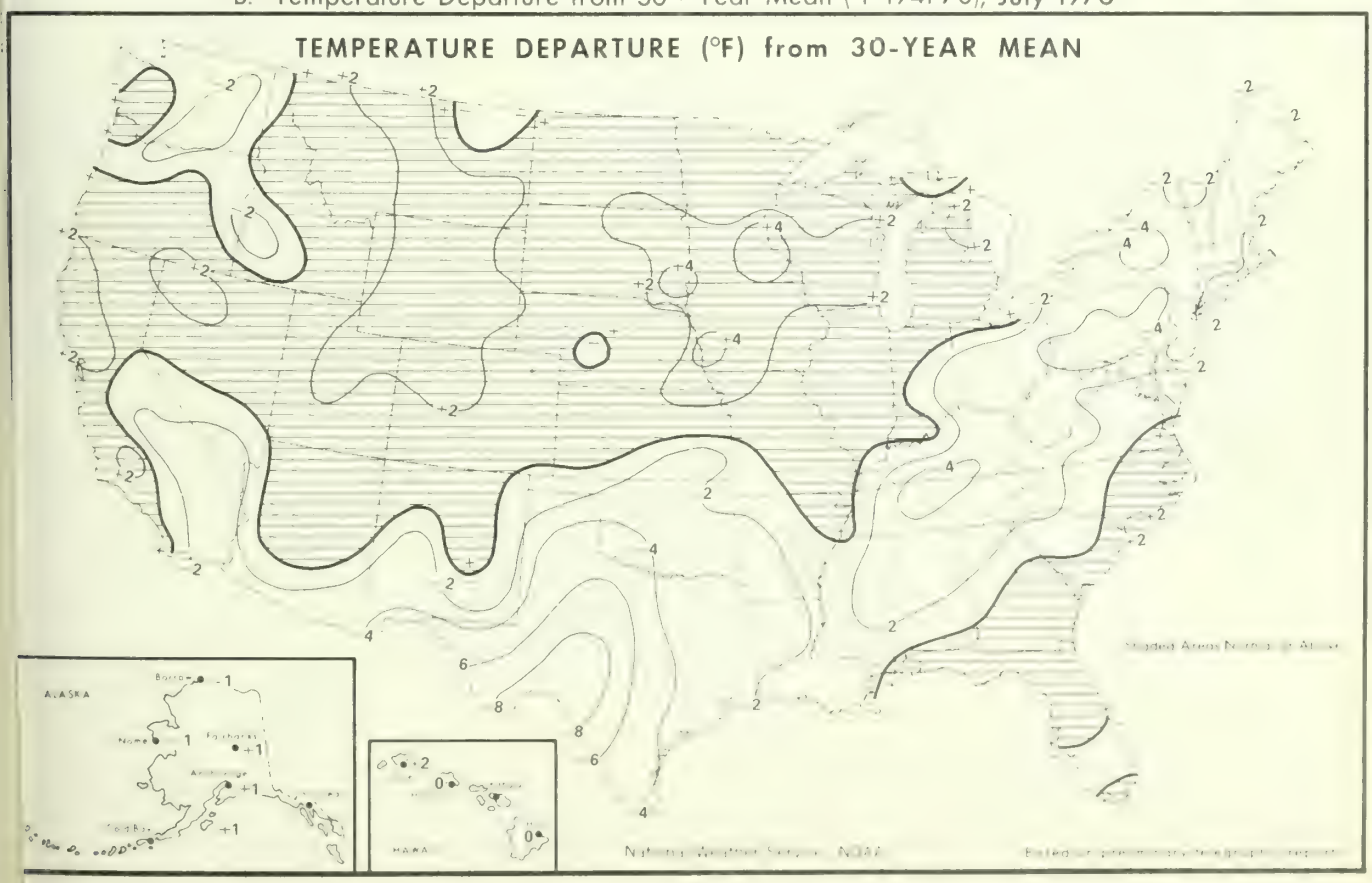
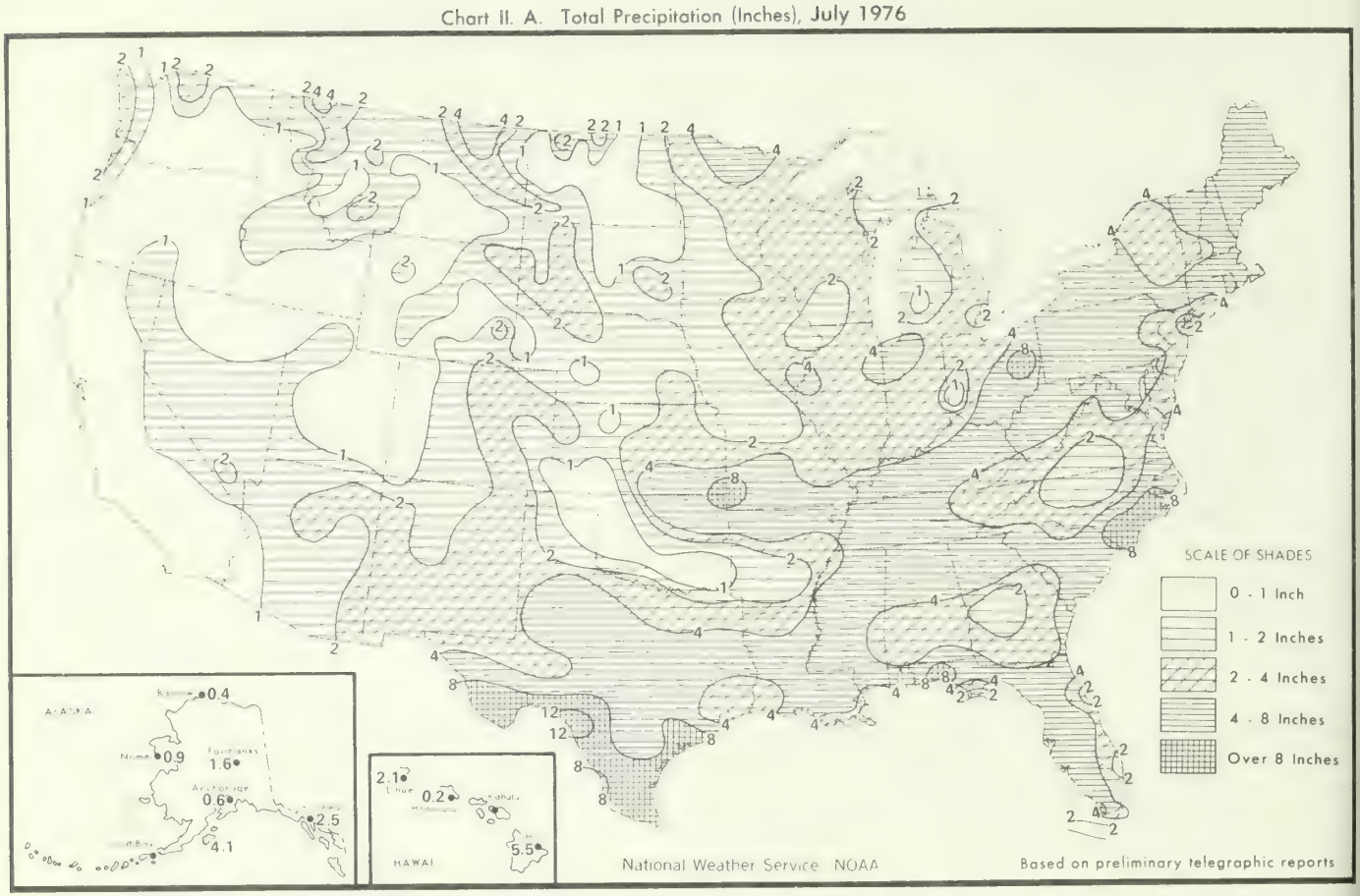
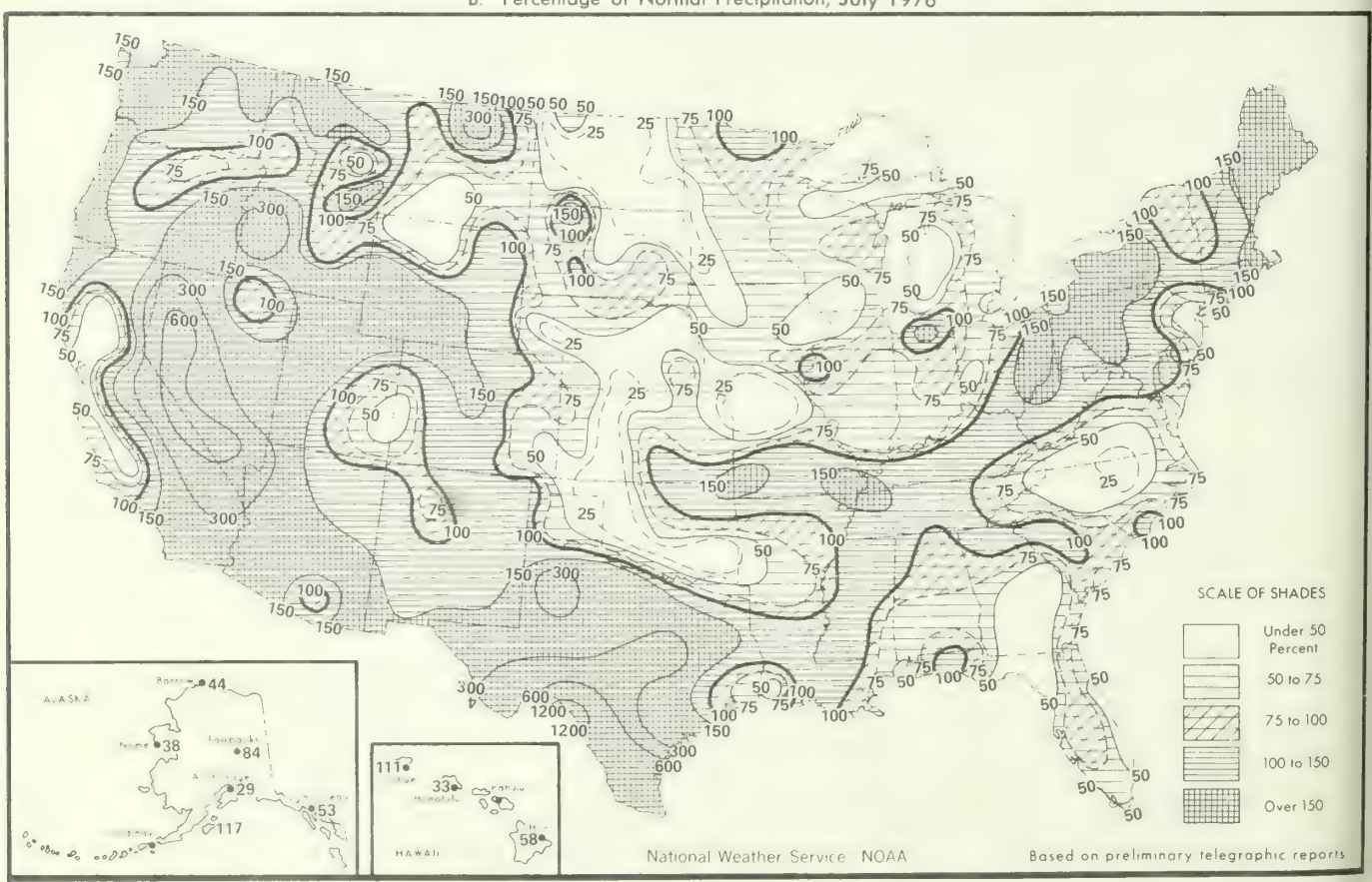
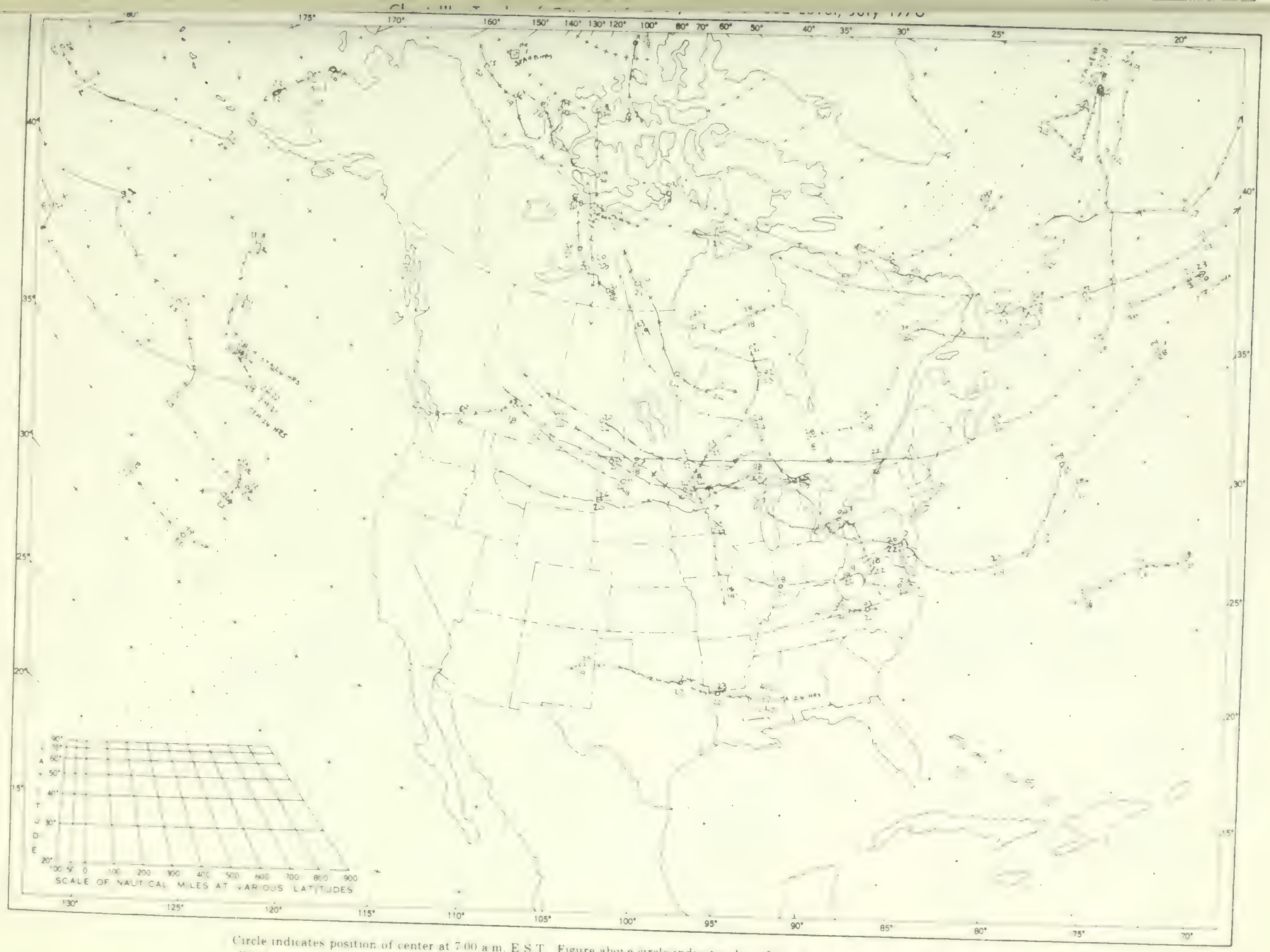


Chart II. A. Total Precipitation (Inches), July 1976



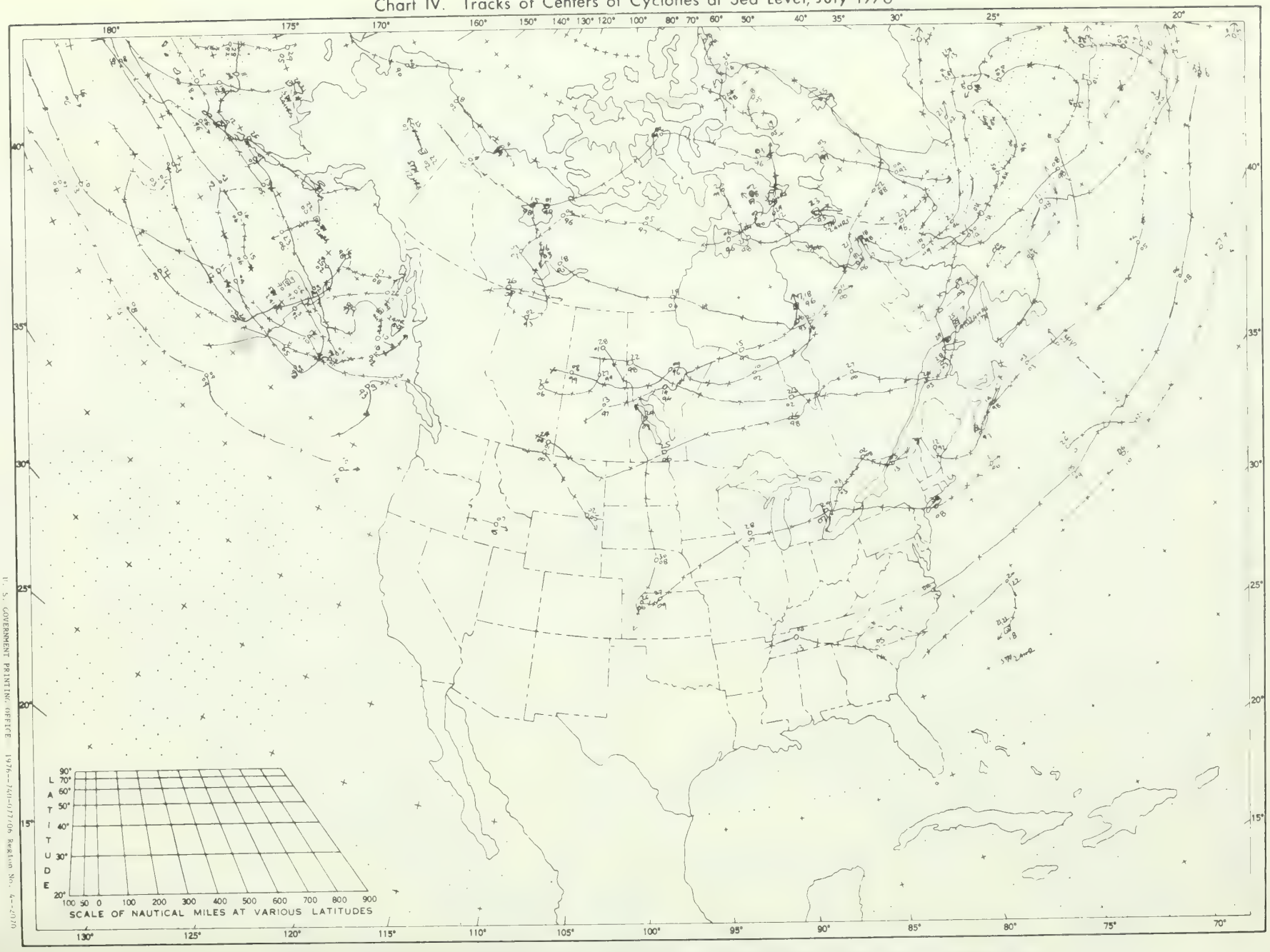
B. Percentage of Normal Precipitation, July 1976





Circle indicates position of center at 7:00 a.m. E S T. Figure above circle indicates date, figure below, pressure to nearest millibar. X's indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IV. Tracks of Centers of Cyclones at Sea Level, July 1976



Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. X's indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

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AUGUST 1976 VOLUME 27 NUMBER 8

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

"I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND IS COMPILED FROM INFORMATION RECEIVED AT THE NATIONAL CLIMATIC CENTER, ASHEVILLE, NORTH CAROLINA 28801."

Daniel B Mitchell

DIRECTOR
NATIONAL CLIMATIC CENTER

oaa NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION / ENVIRONMENTAL DATA SERVICE / NATIONAL CLIMATIC CENTER ASHEVILLE, N.C.

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

AUGUST 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

HIGHLIGHTS: The Nation noted below normal readings except in the northern and central Great Plains, including Montana, Minnesota, and Wisconsin. The eastern Dakotas were, generally, 4 to 5° above normal. Ohio, Kentucky, Tennessee, western Arkansas, and parts of Oregon, Idaho, Nevada, and California listed exceptionally cool temperatures.

Precipitation varied across the Nation. Exceptionally dry weather in the Great Plains, eastern Arkansas and numerous other areas intensified problems in some areas and started them in others. Unusually wet weather in the Northwest created a number of problems for the agricultural community. Northern California and Oregon received over 5 times their normal precipitation. Although totally unexpected rainfall in portions of central and northern California relieved fire dangers and aided pastures, it resulted in considerable losses to fruit and vegetable crops because of splitting and harvest delays. Hurricanes Belle and Dottie caused problems for growers along the East Coast.

August began with a series of cool high pressure systems which moved across the eastern two-thirds of the Nation and produced record low temperatures across the northern States.

Moisture was fairly general during the first week, but heavy amounts were associated with local thunderstorm activity and therefore quite scattered. Heaviest amounts fell in the Savannah, GA, area which received about 3.5 inches of rain in 6 hours on the 3d and totaled 5.3 inches for the week. Considerable moisture also fell in New England and set the stage for problems from Hurricane Belle.

Hurricane Belle was the chief weather topic during the second week of August. Belle traveled along the Atlantic Coast on the 8th and 9th and finally moved inland over Long Island. Torrential rains fell across southern New York and most of New England. Brunswick, ME, received over 5 inches, while New York City's Central Park reported almost 4 inches. Since soils were already close to saturation in many areas, local flooding reached the serious stage. High winds battered coastal resort areas.

Violent weather was common in the Great Plains area during the week. Severe thunderstorms struck northwestern Missouri and eastern Kansas on the 11th. St. Joseph, MO and Emporia, KS clocked winds of more than 50 m.p.h. and golf-ball sized hail pummeled Takio, MO. The line of thunderstorms stretched across Oklahoma to Iowa, Minnesota, and Wisconsin. Light frost covered northern sections of Minnesota, Wisconsin and Michigan.

Almost winter-like circulation pattern dropped considerable moisture into northern and central California from the 14th to the 22d.

Otherwise, the third week of August was generally dry and cool except in the northern Great Plains where temperatures continued well above normal. The Dakotas averaged 6 to 12° above normal. Tropical storm Dottie moved ashore at Charleston, SC on the 20th and deposited more than 7 inches of rain near Wilmington, NC.

The hottest weather of the month in many areas occurred during the final week when the entire Nation, except the Rocky Mountain States, was above normal. A large high pressure system settled in over the eastern half of the Nation. Very light winds and high humidities combined to produce thundershowers in the south-central States and air pollution alerts for a number of eastern States.

HURRICANE BELLE

August 6 - 10, 1976

National Hurricane Center, NOAA
Miami, Florida

GENERAL

The precursor of Belle moved westward off of the African coast on July 28. It was the 20th tropical system of 1976 to be tracked across the Atlantic and was quite well-defined. By the time it reached the mid-Atlantic area on the 31st, the system was better organized than most waves that move across this area with a possible lower-tropospheric (but not surface) closed circulation as well as having considerable convection associated.

The wave travelled across the Atlantic at a little more than 20 knots. While the wave itself continued westward across the Caribbean, the major convection separated just east of the Leeward Islands and moved northwestward and slowed down, reaching a position just east of the northern Bahamas on August 5.

By now, the associated convection had become rather concentrated over a roughly circular area of 3 to 4 hundred miles diameter. And by late on August 5, satellite pictures showed well-defined cirrus-level anticyclonic outflow. Also, during this time, the surface pressure gradient weakened across the northern Bahamas and surrounding waters. Finally, early on the 6th, the surface circulation was well-enough defined to upgrade the system to a tropical depression with maximum surface winds of 25 knots and a minimum central pressure of 1012 mbs.

Intensification of this system was rather steady from the 6th through early on the 9th when the minimum central pressure was determined to be 957 mbs and the maximum sustained wind speed was estimated at 105 kts. Late on the 8th, NOAA Research aircraft reported spot winds as high as 130 kts, but these winds were measured at altitudes near or above 700 mbs and were not evaluated to be representative of sustained surface winds.

As Belle increased in intensity, she was upgraded to tropical storm status on the evening of the 6th and to a full hurricane during late afternoon on the 7th. The hurricane classification was based on reports from reconnaissance aircraft as well as the fact that an eye was detected from satellite photographs.

While Belle was a tropical depression and for the first few hours as a tropical storm, her position remained about 250 n.mi. east northeast of Nassau in the Bahamas. Actually, during this time, she was moving in a small cyclonic loop. But soon after reaching tropical storm intensity, she accelerated toward the northeast and on the 8th started moving northward. This direction of motion continued for the next two days during which time her forward speed increased to between 20 and 25 knots.

Finally, landfall was made early on the 10th (0500 GMT or 0100 EDT) on the south coast of Long Island. The point of landfall is estimated to be in the vicinity of Jones Beach on western Long Island.

The storm moved northward across Long Island, then over Long Island Sound, reaching the Connecticut coast near Bridgeport. Her course continued across west central Massachusetts into southwest New Hampshire, finally northeastward into western Maine. During this later period, over New Hampshire and Maine, tropical characteristics were lost.

WARNINGS

As is the case with almost every storm that moves very near and parallel to the East Coast, it was necessary to place a hurricane watch and/or warnings over a rather large segment of the Eastern Seaboard.

Belle was no exception. The entire coastline from Georgia northward to Maine was eventually placed under a hurricane watch. Hurricane warnings were first announced for the Outer Banks of North Carolina from Kitty Hawk to Cape Lookout. This was on the afternoon of the 8th when Belle was a little over 300 miles south of Cape Hatteras and moving due northward.

Then on the morning of the 9th, warnings were extended northward to include the remainder of the North Carolina coast and were also placed over much of the northeast area from Delaware northward through Massachusetts. This included the coastal section of New Jersey, New York, Connecticut, and Rhode Island. Finally, on the evening of the 9th warnings were extended northward from Massachusetts through Maine. By now, Belle had passed to within 100 miles of the North Carolina Outer Banks and warnings were discontinued over this area.

HURRICANE BELLE

AUGUST 6 - 10, 1976

National Hurricane Center, NOAA
Miami, Florida

By midday on the 9th, the public advisories started mentioning central or eastern Long Island as the point of landfall. Coastal storm tides of 8 feet or more above normal were emphasized as well as high winds near landfall. An inland flash flood threat was expressed for much of the northeast as heavy rain had already been occurring not associated with Belle. In addition, tides of up to 12 to 15 feet above normal in some bays and inlets were considered possible near the center.

The basis for this serious threat was the fact that the intensity of the storm early on the 9th, when the warnings were being formulated, was in the range of a category "3" storm in the Saffir-Simpson scale which implies extensive damage. It turns out that the storm reached its peak intensity early on the 9th and was on a weakening trend from that time until landfall, a period of almost 24-hours. Estimated maximum sustained winds at land-fall were 65 knots and minimum sea level pressure was up to near 980 millibars. So Belle decreased in intensity from a Category 3 major hurricane to a minimal hurricane during the 24 hours before landfall.

One of the reasons for this significant weakening before landfall is the fact that Belle's northward motion remained at speeds less than 25 knots. This allowed more time for the storm to travel over the colder waters of the Atlantic north of the Gulf Stream which veers eastward away from the coast just north of Cape Hatteras. Most of the major storms that have affected the Northeast have accelerated to speeds of motion considerably higher than Belle and therefore did not have as much time as Belle did over colder water.

This is, of course, a fortunate turn of events as far as residents of the warning area are concerned. However, a side effect which is not so fortunate is that many people in the warning area could be lulled into a false sense of security. If these people base their hurricane knowledge only on this single experience, they may become complacent or apathetic about potential dangers of the next hurricane to approach this area.

DAMAGE

Preliminary estimates of damage caused by strong winds are minimal. Reports indicate that maximum sustained winds were mostly less than hurricane force over most of the warning area. Steady northwest 55 to 65 knot winds were estimated along the Outer Banks of North Carolina during the period that Belle passed just offshore. Moving northward, the next highest wind reported was 50 knots with gusts to 60 at Ocean City, MD. Along the New Jersey coast, 30 to 40 knots was common but Ship Bottom estimated 55 gusts to 80 knots, and Manasquan estimated 70 knot gusts.

In the New York City area, LaGuardia Airport measured northeast winds at 52 knots with gusts to 63. Sustained winds of 55 knots were common on the south shore of Long Island and an estimated gust to 80 knots was reported from Jones Beach. Finally, as the storm moved across southern New England, there were several instances of gusts to above hurricane force but steady winds were mainly in the 30 to 40 knot range.

Tidal variation associated with the storm surge was generally about three feet above normal over much of the warning area. However, at some locations from New Jersey southward, tides were somewhat below normal due to an offshore wind component.

Tides of three feet over the road surface were observed at points along the North Carolina Outer Banks. At Ocean City, MD, estimates of four feet above normal were reported. Battery Park at the south tip of Manhatten had tides of 7.2 feet above mean low water or 4.5 feet above normal. No figures have been received from Long Island when it is suspected that some higher tides may have occurred.

Rainfall amounts of 4 to 5 inches during the 24-hour period of Belle's passage were common over much of the warning area as well as quite a distance inland, especially in the western and northern mountains of New England.

Because of widespread precipitation throughout the area for a day or two immediately prior to the hurricane, there was considerable small stream flooding and flooded roads. Crop damage was spotty and although there were some losses to bottomland crops, damage from Hurricane Belle was much less than anticipated.

HURRICANE BELLE

AUGUST 6 - 10, 1976

National Hurricane Center, NOAA
Miami, Florida

In New England, there were three deaths which may possibly be attributed to Belle. Two drowned in southern Vermont when a foot bridge was swept from under them. In Connecticut, a woman was killed in Barkhamstead when her car skidded into a tree. At Norfolk, VA, a traffic accident due to heavy rain resulted in one death. In New York, a falling tree was responsible for one fatality. So this preliminary report can account for five storm-related deaths.

Reports of dollar damage as well as how many persons evacuated are difficult to estimate. The largest figure available for evacuation is that of 250,000 people along the New Jersey Shore. A combined figure of near 30,000 people has been given for New York City and Suffolk County, New York. Connecticut reports approximately 5,000 evacuated. Down on the North Carolina coast, 10,000 people evacuated. Unknown thousands were most likely evacuated elsewhere in New England and along the Eastern Seaboard. It can, therefore, be concluded that upwards of near half a million people evacuated in anticipation of the danger of Belle's storm surge.

Dollar damage estimates will not be attempted at this time.

HURRICANE BELLE

AUGUST 6 - 10, 1976

Preliminary Track

DATE	TIME GMT	POSITION LATITUDE	POSITION LONGITUDE	PRESSURE (MBS)	WIND (KTS)	CLASSIFICATION
8/6	0600	26.0	72.8	1012	25	Tropical Depression
	1200	26.3	73.0	1012	25	
	1800	26.0	73.4	1009	30	
8/7	0000	25.6	73.2	1005	40	Tropical Storm
	0600	26.0	73.2	1000	45	
	1200	26.2	73.7	993	55	
	1800	26.6	74.2	985	70	Hurricane
8/8	0000	26.9	74.6	972	80	
	0600	27.4	75.1	962	90	
	1200	28.1	75.1	959	95	
	1800	29.5	75.3	958	100	
8/9	0000	30.9	75.3	957	105	
	0600	32.5	75.2	959	105	
	1200	34.4	74.7	963	95	
	1800	36.6	74.2	970	90	
8/10	0000	38.8	73.8	977	80	
	0600	41.0	73.2	983	60	Tropical Storm
	1200	42.6	72.4	992	35	
	1800	NORTHERN NEW HAMPSHIRE SOUTHWEST MAINE				Extra Tropical

HURRICANE CANDICE

August 18 - 24, 1976

National Hurricane Center, NOAA
Miami, Florida

Hurricane Candice had its origin in a baroclinic system. As early as August 11th, a cold low was clearly evident at 200 mb, centered near 25N 60W. At that time there was no reflection of the system on the surface chart - in fact, a ridge of high pressure extended north-south along longitude 60W. The outline of the cold low could be seen clearly rotating on satellite loops. There was scattered deep convection extending into the center of the low. During the next few days as the upper low drifted westward, the convection acquired a more solid appearance on satellite pictures, but it was not until the 16th that a broad low-pressure area could be drawn on surface charts. From that time onward the surface low became better organized and it was classified as a depression, centered near 32N 68W, at 1200 GMT as satellite pictures showed increasingly better organization and a ship reported winds gusting to 40 kt.

Meanwhile, the low at 200 mb became less well defined, and by the 17th only a trough west of the surface low could be identified, and the flow above the surface low became increasingly anticyclonic, suggesting a general warning of the system and its transformation to tropical structure.

Continued development ensued during the day, and it was named at 2200 August 18.

As the storm moved northwestward about 15 kt, slight weakening occurred beginning on the afternoon of the 19th and continuing until the following afternoon, when the storm began again to deepen. It became a hurricane during the night of the 20th-21st. Maximum intensity was reached on the afternoon of the 22d when the lowest pressure dropped to 964 mb and maximum sustained winds were 80 kt.

Candice initially took a north northeastward course around the periphery of a 1031 mb high centered just west of the Azores. By the 21st the central pressure of the high had dropped to 1026 mb and as steering currents became balanced, the hurricane drifted southeastward for about 24 hours. It began to be influenced by a prefrontal trough on the 22d, after which it accelerated northeastward.

Early on the 24th, the hurricane was overtaken by a rapidly moving cold front east of Cape Race, Newfoundland. It lost its identity as a tropical system rapidly while accelerating northeastward over the open Atlantic.

There were no known casualties or damages associated with Candice.

HURRICANE CANDICE

AUGUST 18 - 24, 1976

Preliminary Track

DATE	TIME GMT	POSITION LATITUDE	POSITION LONGITUDE	PRESSURE (MBS)	WIND (KTS)	CLASSIFICATION
9/18	0600	29.8	69.3	1010	20	
	1200	31.7	68.2	1007	30	Tropical Depression
	1800	33.4	67.5	1003	35	Tropical Storm
9/19	0000	35.2	66.4	996	40	
	0600	36.7	65.7			
	1200	37.7	65.0			
	1800	38.2	64.0	999		
9/20	0000	38.8	63.7	1005	35	
	0600	39.7	63.3	1005		
	1200	40.2	62.0			
	1800	40.8	61.0	997	40	
9/21	0000	41.1	59.8			
	0600	41.2	59.3	993	65	Hurricane
	1200	41.0	59.0	989		
	1800	40.5	58.7			
9/22	0000	40.3	58.2			
	0600	40.8	57.8		70	
	1200	41.0	57.0			
	1800	41.3	56.4	964	80	
9/23	0000	41.7	55.5			
	0600	42.4	54.3			
	1200	43.1	53.2			
	1800	44.4	51.2	971		
9/24	0000	45.9	48.7			
	0600	47.3	45.5		65	
	1200	49.9	42.8			Extratropical

TROPICAL STORM DOTTIE

AUGUST 17 - 21, 1976

National Hurricane Center, NOAA
Miami, Florida

Dottie began spectacularly and ended ignominiously. The initial low center which became Dottie formed about 150 miles northwest of Key West during the evening of the 17th in response to a strong upper level trough which moved rapidly southward into the eastern Gulf of Mexico. By morning on the 18th the center consolidated between Dry Tortugas and Key West as pressures fell 8 millibars in 24 hours in the area. The depression drifted slowly east and northeast during the next 24 hours with the pressure falling to 1004 millibars at Key West during the early morning hours of the 19th.

The system moved northeast rather rapidly during the morning and was named Dottie that afternoon as it reached the Atlantic near Palm Beach. The depression was not upgraded to a storm in the morning because of the uncertainty that the center might remain over land. However, post-analysis indicates storm strength was attained by 8 AM EDT. Air Force reconnaissance reports indicated 35 knot winds near the middle Keys around mid-morning and 35-45 knot gusts were reported in the middle and upper Keys and on Grand Bahama during the day. In addition, 24 hour rainfall amounts of 5 inches were common in the greater Miami area with one report of over 8 inches in Coral Gables.

Building high pressure north of the storm indicated Dottie would turn more to the west. Also, conditions appeared favorable for further strengthening. Accordingly, gale warnings were issued at 6 PM EDT on the 19th from Jacksonville, FL, to Virginia Beach, VA, including Pamlico and Albemarle Sounds, and a hurricane watch from Savannah, GA, to Cape Hatteras, NC, The hurricane watch was extended to Jacksonville at 6 AM EDT on the 20th when it appeared the center was slowing and turning more to the west. However, the storm continued north and moved inland near Charleston, SC, during the evening.

Dottie strengthened after moving offshore and an Air Force plane found the storm's minimum central pressure of 996 millibars and maximum estimated surface winds of 45 knots around 2 AM EDT when the center was about 75 miles east northeast of Daytona Beach. Strong high level winds over the storm caused weakening thereafter and Dottie was barely of tropical storm strength at landfall.

Gusts of 35-40 knots were reported at beach locations near Wilmington, NC. Tides were 3.5 feet above normal at Atlantic Beach, NC, and ranged from 1 - 2 feet above normal from Jacksonville Beach to the North Carolina Outer Banks. Carolina Beach, NC, had a storm rainfall of 7.78 inches with amounts of 4-6 inches over the ramainder of coastal North Carolina near Wilmington.

The low pressure center which was the remnant of Dottie moved back over the water on the 22d. It almost retraced the storm track - south and then southwest across central Florida into the Gulf of Mexico where it lost its identity on the 25th. No strong winds or significant shower activity were associated with the low and it has not been included in the track.

Four deaths resulted from Dottie when a fishing boat went down on the 19th near Grand Bahama Bank. Damage from the storm was minor, occurring mainly as beach erosion from Georgia to North Carolina.

TROPICAL STORM DOTTIE

AUGUST 17 - 21, 1976

Preliminary Track

DATE	TIME GMT	POSITION LATITUDE	POSITION LONGITUDE	PRESSURE (MBS)	WIND (KTS)	CLASSIFICATION
8/18	0000	26.0	84.0	1010	20	Tropical Depression
	0600	25.3	83.3		20	
	1200	24.7	82.7	1009	20	
	1800	24.5	82.5		20	
8/19	0000	24.6	82.2		25	
	0600	24.8	82.0	1003	30	
	1200	25.0	81.7		35	Tropical Storm
	1800	26.6	80.1	1006	35	
8/20	0000	28.2	80.0		40	
	0600	29.6	80.0	996	45	
	1200	30.6	80.0	999	40	
	1800	32.0	80.0	1005	35	
8/21	0000	33.0	80.0	1005	35	
	0600	33.3	80.0	1010	25	Tropical Depression
	1200	33.5	80.0	1015	20	

HURRICANE EMMY

August 20 - September 4, 1976

National Hurricane Center, NOAA
Miami, Florida

A tropical disturbance moved off the northwestern African coast on August 15-16, with satellite pictures indicating a westward motion of 15 to 20 knots. During the 19th and 20th a tropical depression began forming about 1000 miles east of the Windward Islands. A reconnaissance aircraft flight on the 21st found a circulation but with only 20 knot winds and a central pressure of 1012 mb. The depression gradually strengthened as it moved west northwest around 10 knots and was classified Tropical Storm Emmy on the 22d.

After attaining tropical storm strength, Emmy began moving northwest at 15 knots until the 24th-25th, when the storm slowed and began a sharp turn toward the north. By this time winds had increased to 65 knots and Emmy was designated a hurricane. On the afternoon of the 25th Emmy was moving toward the east at 15 knots, an unprecedented course for the time of year at this low latitude. The rapid development of an unseasonal frontal low pressure system in the mid-Atlantic northeast of Emmy was responsibile for the early recurvature.

When recurvature occurs prematurely, the storm might be expected to resume a more normal course after the westerlies retreat northward. This occurred after Emmy had been moving eastward for about 24 hours with a gradual turn to the north and then the northwest on the 27th.

A strong blocking ridge over the north Atlantic, which had prevailed most of the summer, produced an anomalous belt of westerly flow across the mid-Atlantic near latitude 35° north so that Emmy again turned rapidly to the east along this latitude on the 29th. The hurricane maintained an easterly course of 15 knots or more for the next several days.

On September 1 and 2, Emmy's forward speed decreased and the storm began a northward turn that brought the hurricane over the central Azores by the night of the 3d. After crossing the Azores, Emmy moved slowly northeast and rapidly weakened due to the approach of Hurricane Frances. Emmy was finally absorbed by the large circulation of Frances on the 4th.

Highest sustained winds reported by aircraft were 90 knots with the lowest pressure 974 mb on the same flight August 29.

A number of ships were buffetted by the high seas and winds of Emmy, but there have been no reports of significant damage. No damage reports have been received from the Azores; however, damage was apparently not severe. A Venezuelan Air Force plane carrying a school choir to Europe crashed while attempting to land at Lajes Air Force Base in the Azores during the height of the storm and 68 people were killed.

HURRICANE EMMY

AUGUST 20 - SEPTEMBER 4, 1976

National Hurricane Center, NOAA
Miami, Florida

DATE	TIME GMT	POSITION LATITUDE	POSITION LONGITUDE	PRESSURE (MBS)	WIND (KTS)	CLASSIFICATION
8/20	1200	14.0	48.0	1012	20	Tropical Depression
	1800	14.0	49.3			
8/21	0000	14.0	50.6			
	0600	14.1	51.8			
	1200	14.4	52.8	1012	25	
	1800	14.8	53.5			
8/22	0000	15.2	54.2	1010		
	0600	15.8	55.2	1009	30	
	1200	16.2	56.0	1006	35	Tropical Storm
	1800	17.0	57.2	1004	40	
8/23	0000	17.8	58.6		45	
	0600	18.6	60.0	997	50	
	1200	19.4	61.0		55	
	1800	20.2	62.0	996		
8/24	0000	21.3	63.2	998		
	0600	22.7	64.0	999		
	1200	23.8	64.5	999		
	1800	24.5	64.8	995	60	
8/25	0000	25.3	64.2			
	0600	26.0	63.4	991		
	1200	26.5	62.1	990	65	Hurricane
	1800	26.6	60.4	991		
8/26	0000	26.8	59.0	988	70	
	0600	27.0	57.8	984	75	
	1200	27.2	56.2	980	80	
	1800	27.7	54.8	976	85	
8/27	0000	28.9	53.6			
	0600	29.8	53.4			
	1200	30.9	53.7	975	85	
	1800	31.8	54.0			
8/28	0000	32.5	55.2			
	0600	33.0	56.0			
	1200	33.5	56.6	975	85	
	1800	34.0	57.2			
/29	0000	34.4	57.4			
	0600	34.8	57.4			
	1200	35.0	56.8	974	90	
	1800	35.0	55.5			
/30	0000	35.0	54.5			
	0600	35.0	53.3			
	1200	34.9	52.0	975	90	
	1800	34.9	50.5			
/31	0000	34.9	48.7			
	0600	34.9	46.8			
	1200	35.1	44.9	977	85	
	1800	35.2	42.8			
/01	0000	35.5	40.5			Hurricane
	0600	35.4	38.5			
	1200	35.1	36.6	975	80	
	1800	34.8	34.8			
/02	0000	34.0	33.2			

HURRICANE EMMY

August 20 - September 4, 1976

Preliminary Track

DATE	TIME GMT	POSITION LATITUDE	POSITION LONGITUDE	PRESSURE (MBS)	WIND (KTS)	CLASSIFICATION
9/02	0600	33.6	32.0			
	1200	33.6	30.5			
	1800	34.2	29.4			
9/03	0000	35.2	28.7	980	75	
	0600	36.2	28.3			
	1200	37.2	28.0			
	1800	38.0	27.2	984	70	
9/04	0000	38.8	26.8	988	65	
	0600	39.6	25.8	994		
	1200	40.5	25.0	998	50	Extratropical
	1800	41.0	24.0	1002	30	

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
	6 Stations	10	2-	Talcville 1 E	19	1		8.41	Hamilton 3 S	
	Tenakee Springs	10	2-	3 Stations	22	31-	Mac Leod Harbor	18.83	Barter Island WSO AP	
		12	22	Fort Valley	24	11	Sunrise Mountain		19 Stations	
	Blue Mountain Dam	11	1		3	1				
	Death Valley	12	31	White Mountain 2	17	13	Redding Fire Station 2		97 Stations	
Colorado		11	6		24	28			Grand Junction 6 ESE	
Connecticut	4 Stations	10	7-	2 Stations	9	1	Mount Carmel	11.27		
		0	2		12	1	Georgetown 5 SW		Wilmington WSO AP	
Florida	Smith Creek	1	1	2 Stations	5	19	Flamingo Ranger Station	14.38	Island Grove	
	2 Stations	10	11	2	20	10	Sapelo Island	15.61	Resaca	
	2 Stations	9	18	Haleakala Ranger Sta. 338	31	10	Puohokamoa 2 343		15 Stations	
Idaho	Mountain Home	10	31	Henry	1	31			Arco 3 SW	
Illinois	Minonk	10	5-	Mount Carroll	10	31			Benton Forest Service	
Indiana		10	5-		11	1			Mount Vernon	
Iowa	Sidney	11	31	Fayette	11	10			Holstein	
Kansas	2 Stations	11	5		7	29			Saint Peter 4 ENE	
		9	31		10	1			Paducah FAA AP	
	4 Stations	10	31	4 Stations	11	10	Franklinton 3 SW		Haynesville 2 WSW	
Maine	Millinocket	10	5-	2 Stations	11	31	Squa Pan Dam		Bar Harbor 3 NW	
Maryland	4 Stations	10	10	Oakland 1 SE	1	31	Assateague State Park		Patuxent River	
	Chester 2	11	31	Barre Falls Dam	25	1	Chester 2	1	Nantucket FAA AP	
Michigan		12	1		1	31	Cornell 4 WSW		Adrian 2 NNE	
Minnesota	Browns Valley	11	1		2	29	Thorhult 1 S	1	Rothsay	
	2 Stations	10	1		11	9	Vancleave	1	Lake Cormorant 1 W	
	3 Stations	10	11	6 NE	20	1	Hermann	1		
Montana	4 NW	10	1	Wisdom	12	31	Heron 2 NW		2 Stations	
	Stapleton 5 SSE	10	9	Agate 3 E	7	28				
Nevada	Sunrise Manr Las Vegas	11	11	Spring Valley State Park	20	10	Mount Rose Bowl	1	11 Stations	
		7	1	Mount Washington	9	31	Mount Washington	10.63	Franklin Falls Dam	
	3 Stations	9	1	2 Stations	10	11		7.68	Split Rock Pond	
New Mexico		10	1	Wolf Canyon	20	6	Clovis	6.26	Hope	
New York	New York Laurel Hill	11	22	Old Forge	26	31		11.28	Lockport 2 NE	
North Carolina	Winston-Salem Filt Plant	10	12		18	31	Longwood	15.50	Mount Airy	
North Dakota	3 Stations	10	10		31	28		3.76	New England	
	4 Stations	10	28-	Millport 2 NW	4	10		8.29	Wauseon Waste Water Plant	
		10	1-	Kenton	11	29	Carter Tower	5.32	Hennessey	
	Spray	10	31	Chemult	21	30		6.22		
Pennsylvania	2 Stations	10	26-		1	31	Blairsville 6 ENE	6.38	Lewistown	
Puerto Rico	Magueyes Island	8	21	2 Stations	7	10	Pico Del Este	13.73	Puerto Real	
Rhode Island	Providence WSO AP	10	22	Kingston	0	31	Block Island WSO AP	8.98	Newport	
South Carolina	2 Stations	10	11	Ninety Nine Islands	17	31	Edisto Island 4 SSW			
South Dakota	Harrold 12 SSW	11	27	4 NW	31	28	Yankton 3 N	4.22	McLaughlin	
Tennessee	3 Stations	10	16-		12	1	Nashville WSO AP	8.05	Lexington	
Texas	Presidio	11	9	2 S	10	29		6.86	6 Stations	
Utah	Saint George	11	31		21	27	Garland	2.76	6 Stations	
	Vernon	9	23	4 Stations	20	31	Mount Mansfield	11.15	Saint Albans Bay	
	Chase City	10	30		4	5	Wallop Island WSSF	8.60	Amelia Court House	
		9	12	Annaly	10	27	Frederiksted	4.97		
		10	31	Satus Pass 2 SSW	27	17	Tolt South Fork Reservoir	6.99	Ephrata FAA AP	
	2 Stations	10	26-	Canaan Valley	28	31		6.77	East Rainelle 3 NNE	
	2 Stations	10	19-	Couderay 8 W	2	29	Lake Mills	4.21	Cashton	
	4 Stations	10	23-	Lamar Ranger Stations	12	27		1.29	Bill	

CLIMATOLOGICAL DATA

METRIC UNITS

AUGUST 1976

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32°C or above	Temperature: No of days: Min 0°C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
ALABAMA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
BIRMINGHAM	189	995.9	1017.9	30.8	19.1	25.0	-1.2	33.9	14+	12.2	9	10	0	19.4	77	85	-25	25	9	8	0	0	1.4	5	21.9	N	16	9	13	9	5.5	73
HUNTSVILLE	190	995.6	1018.2	30.9	18.4	24.7	-1.4	34.4	14	12.8	9	13	0	17.2	69	32	-56	14	7	5	0	0	1.1	4	12.5	28	15	11	9	11	5.1	
MOBILE	64	1009.1	1016.8	32.8	21.7	27.2	-0.3	36.1	16	17.8	19+	22	0	21.1	75	121	-55	52	11	9	0	0	0.8	4	11.2	1	30	14	10	7	4.6	
MONTGOMERY	59	1010.2	1017.5	31.7	20.3	26.0	-1.1	34.4	16+	16.1	19	15	0	19.4	74	56	-32	21	10	8	0	0	0.8	7	10.7	SW	27	10	15	6	4.9	71
ALASKA												8																				
ANCHERAGE	35	1006.4	1011.2	17.1	9.8	13.5	0.2	21.7	3	5.6	29	3	0	9.4	76	25	-34	8	8	0	0	0	0.9	18	10.7	15	24	4	9	18	7.5	54
ANNETTE	34	1011.2	1015.3	18.1	11.3	14.7	0.1	25.0	1	7.2	23	6	0	10.6	80	192	10	81	15	0	0	0	2.0	15	10.7	15	10	2	9	20	8.0	
BARROW	9	1011.5	1012.2	5.8	0.3	3.1	-0.1	12.2	22	-2.2	19+	0	13	1.7	91	4	-22	3	6	0	T	0	1.1	8	10.3	11	9	0	10	21	8.0	
BARTER ISLAND	12	1010.2	1012.1	7.1	1.4	4.3	0.4	14.4	6	-2.2	30	0	11	3.3	95	6	-26	4	4	0	T	0	1.8	8	14.3	27	21	1	8	22	8.1	
BETHEL	38	1004.4	1010.1	16.8	7.8	12.3	1.1	25.0	5	5.6	30+	4	0	8.9	83	25	-76	7	19	1	0	0	0.3	17	10.3	12	31	2	5	24	8.5	
BETTLES	196	986.5		20.8	8.5	14.7	3.6	27.8	6+	3.9	29+	15	0			49	-22	21	10	1	0	0	0.3	34								
BIG DELTA	386			20.3	9.8	15.1	2.4	30.6	1	4.4	26	16	0			57	8	27	12		0	0										
COLD BAY	29	1006.4	1010.1	13.4	7.4	10.4	-0.3	21.1	4	3.9	30	1	0	8.9	92	51	-48	13	21	0	0	0	2.3	22	19.2	15	30	0	2	29	9.3	
FAIRBANKS	133	993.2	1009.9	21.1	9.1	15.1	2.1	32.2	1	3.9	28+	15	0	8.9	69	18	-38	9	5	0	0	0	0.1	28	8.9	20	2	6	10	15	6.4	
GULKANA	479			19.4												23	-17	6	7		0	0										
HOMER	19	1007.5		15.5	7.4	11.5		19.4	3	2.2	31	0	0			58	-7	22	12	0	0	0	0.3	12	13.0	8	6	4	9	18	7.5	
JUNEAU	4	1013.2	1013.9	17.9	8.7	13.3	0.9	27.8	1	4.4	30+	6	0	10.0	83	80	-47	20	16	0	0	0	1.4	10	10.7	12	12+	6	5	20	7.5	43
KING SALMON	15	1007.1	1009.1	15.8	7.7	11.7	-0.4	23.9	4	1.1	30	3	0	8.9	83	43	-44	15	16	1	0	0	1.0	15	11.6	15	31	1	4	26	8.5	
KODIAK	4	1005.8	1010.1	16.1	9.8	12.9	0.2	25.0	22	7.2	31	5	0	10.6	87	226	117	85	15	0	0	0	1.9	6	15.6	8	25	4	3	24	8.3	
KOTZEBUE	3	1009.5	1010.1	15.8	10.0	12.9	2.5	18.9	31+	6.1	18	0	0	9.4	79	12	-45	8	5	0	0	0	1.2	27	11.2	30	18+	10	12	9	5.5	
MC GRATH	105	997.6	1010.1	20.3	6.4	13.4	1.4	26.7	5+	1.1	26	15	0	8.3	76	23	-60	9	13	4	0	0	0.4	31	7.6	9	26+	4	14	13	6.8	
NOME	4	1008.8	1009.6	14.3	7.1	10.7	1.2	23.9	5	2.2	20+	2	0	7.2	77	76	-15	76	17	0	0	0	0.5	18	13.4	13	31	5	8	18	7.3	39
ST. PAUL ISLAND	7			10.3	7.0	8.7	0.1	12.8	8	3.3	6	0	0			38	-49	14	11	0	0	0			19.2	15	30	0	1	30	9.7	
SUMMIT	731			17.1	5.4	11.3	2.1	25.6	2	-0.6	29	5	1			24	-59	5	13		0	0			8.9	26	7					
TALKEETNA	105	998.3		19.3	7.7	13.5	0.9	25.0	4+	0.6	30	11	0			55	-69	19	13	2	0	0	0.3	18	10.3	18	16					
UNALAKLEET	5			16.9	8.4	12.7		23.9	6	2.2	30	2	0			33		12	12		0	0			13.4	14	25	4	5	22	7.9	
VALDEZ	7			15.6	8.4	12.0	0.9	24.4	22	5.0	30	2	0			77	-70		18		0				7.6	28	4					
YAKUTAT	9	1012.5	1013.6	15.3	8.5	11.9	0.3	21.1	1	1.7	30	1	0	10.6	89	257	-18	77	17	0	0	0	1.1	10	10.7	12	18	2	5	24	8.4	
ARIZONA																																
FLAGSTAFF	2135	791.7	1016.6	27.1	7.2	17.1	-0.4	30.6	31+	0.6	14	0	0	4.4	48	15	-53	5	6	9	0	0	1.6	21	10.3	SW	16+	18	11	2	3.2	86
PHOENIX	339	972.2	1010.1	39.5	25.7	32.6	0.9	42.8	6	22.2	15+	31	0	10.0	27	3	-28	2	2	5	0	0	0.7	14	26.4Y	S	8	25	5	1	1.7	94
TUCSON	788	925.5	1010.7	36.6	22.6	29.6	0.8	40.0	6	18.9	5	31	0	11.7	36	6	-54	2	4	8	0	0	1.6	17	14.8	SE	7	23	3	5	3.2	91
WINSLOW	1492	854.0	1014.7	32.5	14.6	23.6	-0.9	36.1	6	8.3	14	23	0	7.2	40	23	-15	14	5	5	0	0	2.2	18	13.0	15	19	13	16	2	4.0	
YUMA	59	1002.7	1009.7	40.0	25.0	32.5	-1.3	43.3	12	20.6	20+	31	0	11.1	31	0	-11	0	0	1	0	0	2.0	21	11.6	SE	26	28	3	0	.9	99
ARKANSAS																																
FORT SMITH	136	1001.4	1017.8	32.2	18.2	25.2	-2.2	36.1	14	12.8	3	20	0	17.2	66	72	-2	35	6	8	0	0	1.8	8	14.3	NW	5	18	8	5	3.7	76
LITTLE ROCK	78	1008.8	1018.2	33.3	18.6	25.9	-1.1	38.3	14	15.0	10	21	0	16.7	61	40	-36	31	3	5	0	0	1.2	9	12.5	NW	27	17	9	5	4.1	89
CALIFORNIA																																
BAKERSFIELD	145	996.6	1014.0	32.8	19.5	26.2	-1.4	41.7	31+	15.6	17	16	0	12.8	46	T	0	T	0	0	0	0	2.4	32	9.4	32	21	23	4	4	1.9	
BISHOP	1252	873.4		32.1	10.3	21.2	-2.2	39.4	31	5.0	16	15	0			T	-3	T	0		0	0			33.5Y		2	23	5	3	2.2	
BLUE CANYON	1609	841.2	1014.9	20.6	10.6	15.6	-3.8	31.1	31	3.9	17	0	0	4.4	53	93	87	65	5		0	0	0.9	20	8.9	19	15					
EUREKA U	13			16.6	12.1	14.4	0.5	18.9	16	10.0	31	0	0			43	36	17	10		0	0			11.2	SW	15	4	5	22	7.8	32
FRESNO	100	1002.7	1014.3	33.5	14.7	22.6	-3.1	38.9	31+	11.7	16	12	0	12.8	58	5	5	5	2	0	0	0	2.5	29	9.4	31	3	23	4	4	2.5	87
LONG BEACH	8	1013.2	1014.7	28.8	18.1	23.4	0.5	37.8	30	15.6	9+	4	0	15.6	66	1	0	1	2	0	0	0	1.6	26	7.2	30	21+	25	4	2	2.2	
LOS ANGELES	30	1011.2	1014.7	24.0	17.4	20.7	-0.1	28.3	31	15.6	3	0	0	16.1	79	1	0	1	1	0	0	0	3.4	25	12.5Y	W	19+	23	6	2	2.6	
LOS ANGELES U	82			27.2	16.7	22.0	-1.4	37.2	30	13.3	12	3	0			2	1	2	1		0	0			7.2	SW	21+	25	5	1	2.1	94
MT SHASTA R	1080	893.7	1016.5	23.8	8.8	16.3	-2.6	34.4	31	4.4	19	1	0	7.8	62	65	57	19	10		0	0	0.2	6								
OAKLAND	2	1016.3	1016.5	21.9	14.8	18.4	0.9	27.2	27	12.2	31	0	0	14.4	83	19	18	11	6	1	0	0	3.1	28	10.3	26	13	13	10	8	4.8	
RED BLUFF	104	1001.7	1014.0	32.3	17.6	24.9	-1.7	41.7	31+	14.4	19+	19	0	11.1	49	14	9	6	5	3	0	0	1.2	18	13.0	S	15	17	5	9	4.0	87
SACRAMENTO	5	1013.5	1014.4	30.9	15.1	23.0	-0.4	40.0	31+	12.8	27+	14	0	12.2	58	17	15	13	4	0	0	0	2.6	21	9.8	SW	1	21	5	5	3.0	93
SANDBERG R	1377	863.9	1015.1	25.2	12.7	18.9	-3.8	35.6	29	6.7	16	5	0	5.0	49	1	-1	1	1		0	0	1.7	29	13.9	34	4					
SAN DIEGO	4	1013.9	1014.8	25.5	19.4	22.4	0.6	31.7	30	17.2	12+	0	0	16.1	70	T	-2	T	1	0	0	0	2.8	30	8.9	NW	19	21	9	1	2.9	80
SAN FRANCISCO	2	1015.6	1016.2	22.1	13.8	17.9	0.7	28.9	27	11.7	31+	0	0	11.7	72	17	16	9	6	0	0	0	4.1	28	11.6	29	7+	13	8	10	4.7	
SAN FRANCISCO U	16			20.1	13.8	16.9	1.7	26.1	20	11.1	12	0	0			20	19	9	5		0											
SANTA MARIA	72			23.4	12.8	18.2	1.3	28.3	27	10.6	27+	0	0			22	21	22	3		0							17	8	6	4.0	
STOCKTON	7	1013.9	1014.9	30.8	15.9	23.4	-0.7	39.4	30	12.8	16	14	0	10.6	51	13	12	6	6	2	0	0	2.9	29	10.3	26	5	19	7	5	3.2	
COLORADO																																
ALAMOSA	2297	778.2		25.4	6.2	15.8	-1.2	29.4	7	2.2	6	0	0			31	2	9	13		0	0						13	8	10	5.7	

CLIMATOLOGICAL DATA

METRIC UNITS

AUGUST 1976

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days Max 32.2°C or above	Temperature: No. of days Min 0°C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days 2.5 mm or more	Precipitation: No. of days With thunderstorms	Precipitation: Snow Ice pellets Total	Precipitation: Snow Ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile 1.6 kilometers Speed	Wind: Fastest mile 1.6 kilometers Direction	Wind: Fastest mile 1.6 kilometers Date	No. of days (sunrise to sunset) Clear 0-3	No. of days (sunrise to sunset) Partly cloudy 4-7	No. of days (sunrise to sunset) Cloudy 8-10	Sky cover tenths sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							
COLORADO																																
COLORADO SPRINGS	1873	815.8	1115.9	27.4	12.7	20.1	-0.6	31.1	26+	8.9	24	0	0	7.2	49	151	85	95	9	13			1.3	6	17.0	32	7	13	8	10	5.1	
DENVER	1610	840.2	1104.8	29.2	13.2	21.2	-0.8	32.8	26+	9.4	27+	4	0	7.2	46	64	31	43	12	13			1.3	18	15.6	6	7	12	11	7	5.0	
GRAND JUNCTION	1476	854.0	1113.2	32.4	15.7	24.1	-0..	36.0	6	12.8	27+	26	0	4.4	38	8	19	6	2	3			2.1	13	21.9	NE	22	15	4	3	3.8	80
PUEBLO	1428	856..	1114.3	31.3	13.6	22.5	-1.1	36.1	26	9.4	30+	16	0	9.4	51	22	-27	21	6	5			2.4	24	16.1	NW	30+	14	10	7	5.1	88
CONNECTICUT																																
BRIDGEPORT	2	1017.6	1118.6	27.3	18.2	22.8	0.2	32.8	22	10.0	31	2	0	17.8	74	156	60	48	10	8			4.4	32	25.9	E	9	8	11	11	5.5	
HARTFORD	52	1011.2	1117.5	27.9	15.3	21.7	0.3	33.9	22+	5.6	31	4	0	16.1	73	146	46	41	10	5			3.4	27	13.6	E	10	8	14	9	5.4	66
DELAWARE																																
WILMINGTON	23	1015.9	1118.9	28.5	17.8	23.2	-0.3	33.3	22	10.0	31	4	0	16.7	68	51	-59	27	8	5			1.2	29	9.4	SE	19	13	10	8	4.4	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1007.5	1119.6	29.2	14.7	21.9	-1.2	35.0	13	6.1	31	7	0	15.6	71	80	-28	44	6	4			1.3	30	10.7	SW	25	14	8	9	4.7	
WASHINGTON NATIONAL	3	1016.6	1119.0	29.7	19.9	24.8	-0..	34.4	13	14.4	30	8	0	18.9	71	54	-65	31	5	3			1.8	30	12.5	NW	24	14	11	6	4.5	74
FLORIDA																																
APALACHICOLA U	6	1016.3	1116.7	31.1	22.0	26.7	-0.5	34.4	23	19.4	19	5	0	22.2	79	95	-110	19	13	16			1.8	12	1.3	E	30	9	12	10	5.6	69
DAYTONA BEACH	9	1015.2	1116.8	30.9	22.3	26.7	-0.6	33.3	2+	20.0	30	6	0	21.1	75	97	-77	27	14	11			1.3	8	1.3	S	19+	6	14	5	5.7	
FORT MYERS	5	1015.6	1116.0	32.5	22.9	27.7	-0.5	34.4	16	21.1	30+	22	0	22.2	76	227	31	71	16	10			1.7	8	1.3	E	25+	5	22	3	5.9	
JACKSONVILLE	8	1016.3	1117.4	31.4	21.6	26.5	-0.7	33.9	16+	18.9	30+	14	0	21.7	80	162	-39	65	12	12			2.0	7	11.6	NE	19+	5	14	12	4.4	70
KEY WEST	1	1014.9	1115.7	31.6	25.2	28.4	-0.4	33.8	22+	23.9	18	13	0	24.4	78	180	67	36	18	20			2.1	13	13.0	NE	16	1	13	17	4.3	64
LAKE ALFRED U	65			33.8	22.7	27.8	-0.1	35.0	24+	20.0	13	25	0			203	20	83	19									2	7	7	5.8	71
MIAMI	2	1016.3	1116.5	30.7	24.2	27.7	-0.6	33.9	8	22.2	19	3	0	23.3	78	240	69	94	20	18			1.4	8	12.5	E	16	2	11	18	4.8	
TALLAHASSEE AFB	29	1012.9	1116.5	32.8	22.4	27.7	0..	34.4	10+	21.7	29+	26	0	22.2	80	83	-88	21	17	14			1.8	8	11.7	E	19+	6	15	6	4.1	
PENSACOLA	34	1012.5	1116.9	31.4	22.2	26.8	-0.8	33.9	30	17.8	10	16	0	21.1	74	243	74	84	9	14			2.1	6	17.4	SE	16	5	14	6	4.6	
TALLAHASSEE	17	1014.6	1117.0	33.0	22.1	27.6	0.3	35.6	30	18.9	21	22	0	21.7	77	187	12	57	11	14			1.7	5	11.3	S	7	6	10	7	4.7	
TAMPA	6	1016.3	1116.4	31.9	23.1	27.6	-0.3	33.9	26+	21.1	30+	16	0	21.7	74	178	-25	68	14	21			1.8	8	15.6	E	16	6	11	14	4.4	61
WEST PALM BEACH	5	1015.9	1116.6	31.2	23.4	27.3	-0.6	33.8	21+	21.1	6	10	0	22.2	77	185	10	71	14	14			1.0	9	13.	E	9	2	7	12	4.6	
GEORGIA																																
ATHENS	244	989.5	1107.9	30.4	19.4	24.9	-0.8	34.4	1	15.6	5	6	0	18.9	74	135	44	55	10	5			1.1	7	12.1	SE	25	3	15	13	5.2	
ATLANTA	306	981.7	1107.8	29.7	19.1	24.4	-0.8	32.2	26+	15.0	9	2	0	17.8	71	13	-77	7	5	6			1.8	6	11.1	E	15	1	15	15	5.4	60
AUGUSTA	46	1012.5	1117.6	32.2	19.0	25.7	-0.7	35.6	1	14.4	31+	19	0	18.9	74	46	-61	24	9	5			1.8	6	9.4	E	16+	6	16	7	5.1	
COLUMBUS	117	1003.4		31.9	20.9	26.4	-0.4	34.4	24+	16.7	9	19	0	20.6	76	94	-13	26	8	7			1.8	5	15.6	SE	20	3	13	15	4.9	
MACON	109	1005.1	1117.7	32.6	21.7	27.2	-0.7	34.1	1	17.2	5	22	0	20.0	74	94	1	32	11	4			1.1	7	11.6	E	6	5	16	10	5.1	70
ROME	194			33.8	18.4	25.2	-0.4	34.4	24+	12.8	20	18	0			48	-40	26										2	7	12	5.7	
SAVANNAH	14	1016.3	1118.1	30.2	21.1	25.7	-1.3	34.4	16+	18.3	9	8	0	20.6	78	185	21	125	9	11			1.7	5	11.6	SW	1	1	7	18	5.7	54
HAWAII																																
HILO	8	1015.6	1116.9	28.5	22.4	24.6	0.2	31.7	17	18.9	24+	0	0	20.6	81	130	-146	29	26		C	0	5.4	35	7.4	E	17+	1	7	23	3.1	31
HONOLULU	6	1015.9	1116.4	31.1	23.1	27.1	...	32.2	18	21.1	22+	.	0	20.3	56	4	-15	2	1	5		C	0	5.3	6	13.1	E	...	...	...	2	3.4	45
KAHULUI	15	1013.5	1115.7	31.4	21.3	26.4	..4	33.9	17+	16.1	21	7	0			3	-6	2	1		C	0	1.8	5	13.4	NE	...	1	3	26	2.4	5
LIHUE	31	1012.5	1117.6	29.9	23.4	26.6	0.1	31.4	17+	21.1	31+	0	0	21.7	76	52	-6	19	12	1		C	0	1.8	5	9.4	E	31+	8	14	9	5.1	5
IDAHO																																
BOISE	865	916.0	1114.9	27.6	12.1	19.8	-2.5	35.6	21	7.2	26	7	0	8.3	56	24	17	11	11	8			1.4	1	18.6	SW	19+	18	7	6	5.4	73
LEWISTON	430			28.3	13.9	21.1	-0.8	34.7	31	7.8	27	8	0			45	29	14	14	4					21.4		3	8	11	11	5.3	
POCATELLO	1359	864.5	1115.1	28.1	9.4	18.8	-2.2	34.4	21	3.3	27	5	0	5.6	47	19	3	11	4	4			1.9	33	15.8	SW	22	14	11	5	4.6	85
ILLINOIS																																
CAIRO	99			29.4	19.3	24.6	-1.5	34.4	28	15.2	9	7	0			17	-72	17	2						11.2	SW	24					82
CHICAGO O'HARE	201	995.3	1119.5	28.1	15.1	21.6	-0.2	34.4	23	8.3	27	5	0	13.9	68	33	-37	18	5	4			2.1	22	9.8	NE	27	10	11	8	5.0	
CHICAGO MIDWAY	185	997.6	1119.9	27.7	14.3	21.9	-0.2	34.4	27	8.4	27	3	0	13.9	62	20	-59	8	8	4			1.3	27	6.3	N	24+	12	7	11	5.1	71
MOLINE	177	998.0	1119.4	29.2	14.9	22.1	-0.6	34.1	23	8.3	8	5	0	14.4	65	25	-67	9	6	6			1.3	6	11.1	NE	16	11	11	9	5.1	67
PEORIA	199	996.3	1119.9	27.5	15.1	21.3	-1.8	34.4	27	8.4	8	3	0	15.3	71	59	-47	29	6	5			1.8	12	12.1	E	11	11	11	8	5.2	54
ROCKFORD	221	993.6	1119.6	27.8	13.7	20.8	-1..	34.4	27	7.2	26	2	0	12.8	69	52	-41	19	7	6			1.8	17	8.4	E	10+	12	11	7	4.4	
SPRINGFIELD	179	997.4	1119.4	28.5	15.6	22.0	-1.0	35..	27	8.4	29	4	0	13.6	69	59	-11	36	7	6			1..	14	8.7	E	11	9	11	11	5.1	59
INDIANA																																
EVANSVILLE	116	1005.6	1119.3	29.8	16.4	23..	-1.4	33.3	17	10.6	9	5	0	16.1	68	4	-69	3	5	1			0.6	5	7..	SW	14	12	11	7	4.1	
FORT WAYNE	241	990.3	1120..	27.4	13.7	20.6	-1.3	33.1	26+	8.4	27	1	0	13.9	69	39	-35	24	7	4			0.4	26	9.2	SW	5	11	9	11	5.3	70

CLIMATOLOGICAL DATA

METRIC UNITS

AUGUST 1976

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days Max 32.2°C (or above)	Temperature: No. of days Min 0°C (or lower)	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days 25 mm or more	Precipitation: No. of days With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear 0.3	No. of days (sunrise to sunset): Partly cloudy 4.7	No. of days (sunrise to sunset): Cloudy 8.10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
INDIANA																																
INDIANAPOLIS	241	991.2	1020.0	28.0	15.6	21.8	-1.1	31.1	27+	9.4	30	6	0	16.7	76	202	131	126	8	5	0	0	5	36	8.9	SW	5	12	9	10	4.9	73
SOUTH BEND	236	991.9	1019.8	26.6	14.6	20.6	-1.1	31.7	27	7.2	30	0	0	15.0	73	62	-21	25	7	3	0	0	4	23	8.9	30	14+	12	9	10	5.1	
IOWA																																
BURLINGTON	211			27.6	15.5	21.6	-1.7	34.4	27	10.0	7	2	0	16.1	71	46	-39	37	5	5	0	0	4.2	15	15.3	27	11	12	8	11	5.1	
DES MOINES	286	984.1	1018.4	29.3	17.1	23.2	0.3	35.0	26	10.6	7	8	0	14.4	60	57	-26	36	4	4	0	0	2.0	15	15.2	W	13	13	8	10	4.8	72
DUBUQUE	322	981.0		27.2	13.8	20.5	-0.8	32.8	22	8.9	9+	1	0			93	+9	31	9		0	0										
SIOUX CITY	334	977.7	1016.7	31.0	15.8	23.4	0.4	37.8	26	8.3	29	15	0	15.7	64	8	-67	4	4	3	0	0	2.6	14	13.0	NW	27	11	11	9	4.8	76
WATERLOO	265	987.5	1019.2	28.3	13.5	20.9	-0.7	33.9	22	6.1	29+	4	0	13.3	66	17	-72	12	5	7	0	0	1.8	16	13.0	17	25	12	8	11	5.0	
KANSAS																																
CONCORDIA	448	964.1	1015.8	33.9	18.5	26.2	1.1	41.1	9	8.9	28	21	0	12.8	48	20	-60	14	3	6	0	0	3.4	15	13.4	NE	24	15	13	3	3.8	81
DODGE CITY	787	926.5	1014.9	34.5	18.7	26.6	1.0	39.4	8	10.0	28	25	0	12.7	45	30	-37	24	3	5	0	0	3.2	17	16.1	N	31	18	7	6	3.9	83
GOODLAND	1114	890.3	1014.5	32.1	14.1	23.1	-0.3	37.2	26	8.3	28	19	0	10.6	51	15	-39	8	4	8	0	0	2.6	16	11.2	16	18+	16	9	6	4.0	
TOPEKA	267	986.1	1017.3	32.8	17.1	24.9	-0.2	38.9	27	7.8	29	21	0	16.1	63	22	-84	11	7	9	0	0	1.6	14	13.4	SW	11	12	13	6	4.3	84
WICHITA	403	969.5	1016.4	34.3	18.7	26.5	0.0	41.1	9	12.2	29	22	0	13.9	49	8	-71	2	7	6	0	0	3.2	15	15.2	SE	27	17	9	5	3.6	84
KENTUCKY																																
COVINGTON	265	988.5	1019.6	27.7	15.8	21.8	-1.8	33.2	12	9.4	30	1	0	15.6	72	111	44	55	6	5	0	0	0.5	5	8.9	27	13	13	8	10	4.9	
LEXINGTON	294	984.4	1019.6	27.7	15.9	21.8	-2.1	31.7	24+	10.6	30	0	0	15.6	72	32	-54	10	6	6	0	0	1.0	6	11.2	19	25	10	9	12	5.4	
LOUISVILLE	145	1001.7	1019.0	29.1	17.7	23.4	-0.9	32.8	12	11.7	30	3	0	17.2	71	81	5	42	6	6	0	0	0.8	4	13.4	NW	15	11	10	10	5.5	82
LOUISIANA																																
ALEXANDRIA	28	1012.9	1017.3	33.8	20.9	27.6	-0.1	37.8	15	16.7	9	28	0	20.0	71	57	-30	31	5	10	0	0	6.6	2	8.0	E	30	12	14	5	4.1	
BATON ROUGE	20	1014.6	1017.2	33.2	21.1	27.2	-0.4	36.1	25+	16.7	10	25	0	20.6	73	59	+60	18	12	10	0	0	0.6	1	10.3	S	28+	9	18	4	4.4	
LAKE CHARLES	3	1015.9	1017.0	33.6	20.8	27.2	-0.7	36.1	7	17.8	16	28	0	21.1	75	20	-101	6	5	11	0	0	0.7	7	8.9	9	18	11	13	7	4.6	
NEW ORLEANS	1	1015.6	1016.5	32.9	22.1	27.5	-0.2	35.0	25+	16.7	10	24	0	21.1	72	43	-91	36	5	7	0	0	0.7	1	11.2	12	31	10	14	7	4.8	78
SHREVEPORT	77	1008.5	1017.4	33.0	18.9	25.9	-2.5	35.6	15	16.1	27	24	0	19.4	74	75	7	53	6	9	0	0	0.6	8	13.0	29	28+	16	11	4	3.8	74
MAINE																																
CARIBOU	190	992.6		22.9	11.1	17.0	0.2	33.9	21	3.3	31	2	0			157	61	51	16		0	0						9	8	14	6.3	
PORTLAND	13	1014.9	1017.3	24.0	13.1	18.6	-0.6	30.2	22	5.0	31	1	0	13.9	77	124	58	66	8	6	0	0	0.9	24	13.0	S	10	11	8	12	5.6	65
MARYLAND																																
BALTIMORE	45	1013.9	1019.3	28.9	17.6	23.3	-0.6	33.9	26	10.6	31	7	0	17.2	71	76	-31	37	6	7	0	0	0.9	30	15.6	W	14	14	9	8	4.5	68
MASSACHUSETTS																																
BLUE HILL OBS R	192			25.2	15.3	20.3	-0.5	31.7	22	5.6	31	0	0			227	129	8	11		0	0			21.3	S	10					66
BOSTON	5	1016.9	1017.9	26.8	17.6	22.2	0.4	33.9	21	9.4	31	2	0	16.7	74	203	115	58	13	7	0	0	1.4	25	17.9	S	10	11	9	11	5.2	71
WORCESTER	301	981.4		24.6	14.5	19.6	-0.5	31.7	22	3.9	31	0	0	15.0	78	145	39	47	10	7	0	0	1.5	28	11.7	26	10	8	10	13	6.0	
MICHIGAN																																
ALPENA	210	994.2	1019.4	26.7	11.2	18.9	1.1	33.9	20	3.9	30	5	0	13.3	74	65	-4	30	9	4	0	0	0.9	27	8.9	NW	28+	13	9	9	4.6	73
DETROIT	189			27.4	17.0	22.2	0.1	33.3	27	9.4	30	1	0	14.4	63					3			0.5	27	11.2	22	12					
DETROIT METRO	193	995.6	1019.5	29.0	13.4	21.2	-0.3	35.0	27	5.0	30	6	0	13.9	67	43	-41	41	5	1	0	0	0.8	30	10.7	N	13+	13	9	9	4.9	72
FLINT	235	991.9	1019.5	26.9	13.3	20.1	0.0	34.2	27+	3.3	30	2	0	13.3	67	21	-62	13	6	4	0	0	0.8	27	10.3	20	27	10	10	11	5.4	
GRAND RAPIDS	239	990.9	1019.8	28.3	12.6	20.5	-0.6	34.4	27	3.9	30	5	0	12.8	64	26	-38	14	4	4	0	0	0.8	24	11.6	SW	27+	12	10	9	5.0	72
HOUGHTON LAKE	350	978.3	1020.1	26.0	10.2	18.1	-0.1	31.7	27+	0.6	30	0	0	11.7	67	27	-33	14	6	4	0	0	1.1	27	9.4	28	28	17	5	9	4.5	
LANSING	256	988.2	1019.7	27.3	11.4	19.3	-1.5	33.3	27	1.7	30	3	0	13.9	74	15	-56	6	4	2	0	0	0.8	26	11.6	N	26	8	13	10	5.2	79
MARQUETTE U	206			25.3	14.2	19.8	1.2	36.7	27+	6.1	30+	5	0			13	-64	6	6		0	0			12.1	W	27					82
MUSKEGON	191	997.0	1019.6	25.9	13.1	19.5	-1.1	31.7	23	5.0	30	0	0	13.9	71	24	-41	13	4	3	0	0	0.8	24	11.2	19	27	16	9	6	4.2	
SAULT STE MARIE	220	992.2	1018.6	26.1	10.3	18.2	0.9	34.4	20	1.7	30	2	0	11.7	71	35	-43	15	8	2	0	0	1.1	29	13.4	NW	28	16	5	10	4.9	70
MINNESOTA																																
DULUTH	435	967.5	1018.6	25.1	11.5	18.3	0.4	34.4	19	0.6	29	3	0	11.1	67	47	-50	24	7	7	0	0	1.1	17	13.4	SW	27	12	13	6	4.5	77
INTERNATIONAL FALLS	359	974.3	1017.2	25.6	10.9	18.3	0.9	34.4	19	1.7	29	4	0	12.2	70	48	-38	19	8	9	0	0	0.8	20	9.8	25	27	12	12	7	4.9	
MINNEAPOLIS	254	987.8	1017.9	29.7	16.2	22.9	1.7	36.7	18	8.9	29	9	0	12.8	54	35	-42	22	6	6	0	0	1.5	16	14.3	SW	10	13	14	4	4.0	85
ROCHESTER	395	971.6	1018.7	28.2	13.8	21.0	0.7	33.9	22	4.4	29	3	0	13.3	65	43	-49	27	7	6	0	0	2.3	18	15.6	34	4	12	11	8	5.0	
ST CLOUD	313	981.4	1018.2	29.1	13.0	21.1	0.8	37.2	18	3.3	29	10	0			15	-84	6	5		0	0						15	10	6	4.2	
MISSISSIPPI																																
JACKSON	94	1005.4	1017.2	33.0	20.6	26.8	-0.6	36.1	25	15.0	9	21	0	21.1	76	134	42	42	8	8	0	0	0.9	5	16.5	NE	1	11	13	7	4.4	61

State and Station	Pressure			Temperature											Average relative humidity	Precipitation							Wind						No. of days sunrise to sunset			Sky cover tenths sunrise to sunset	Possible sunshine
	Elevation of gage	Station	Sea level	Average daily max	Average daily min	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max 32.2°C or above	No. of days: Min 0°C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: 25 mm or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Max depth on ground	Resultant speed	Resultant direction	Fastest mile 1.6 kilometers: Speed	Fastest mile 1.6 kilometers: Direction	Fastest mile 1.6 kilometers: Date	Clear 0.3	Partly cloudy 4.7	Cloudy 8.1°C		
	m	mb	mb	°C	°C	°C	°C	°C		°C				°C	%	mm	mm	mm			mm	mm										
MISSISSIPPI																																
MERIDIAN	88	1006.8	1017.6	32.6	17.7	25.2	-1.7	36.1	24+	13.3	26+	18	0	18.9	75	60	-39	34	8	12	0	0	8.8	1	81.0	24	16	14	11	6	4.8	
MISSOURI																																
COLUMBIA REGIONAL	271	987.1	1019.1	31.4	15.6	24.1	-0.4	35.6	17+	11.7	8	14	0	13.9	59	5	-76	3	4	6	0	0	2.6	12	14.3	9	24	14	9	11	5.2	69
KANSAS CITY	306	981.4	1017.4	32.2	18.4	25.4	0.8	40.0	3	14.4	29+	15	0	15.6	61	19	-77	13	6	9	0	0	1.6	15	19.3	22	11	14	11	5	4.1	60
ST. JOSEPH	247			31.1	17.0	24.1	-0.6	36.1	13	9.4	29	13	0			32	-71	17	8		0	0										
ST. LOUIS	168	999.3	1019.6	29.8	17.1	23.5	-1.6	35.6	27	11.7	8	9	0	16.1	68	32	-41	19	5	3	0	0	1.1	11	16.7	NW	14	14	9	6	4.5	76
SPRINGFIELD	386	973.9	1018.6	31.4	16.8	23.7	-1.4	33.9	27	11.1	3	6	0	15.0	63	117	42	87	5	5	0	0	2.0	15	15.2	SW	15	13	15	8	4.0	78
MONTANA																																
BILLINGS	1087	892.3	1018.7	29.9	13.4	21.7	0.6	37.2	22	6.1	27	8	0	6.1	49	15	-10	11	8	4	0	0	1.4	25	18.8	NE	30	14	10	7	4.4	66
GLASGOW	694	933.3	1018.3	26.8	13.9	20.4	1.1	37.8	22	6.1	28	4	0	9.4	59	29	-9	18	6	5	0	0	1.3	12	13.4	NW	27+	13	13	5	4.5	
GREAT FALLS	1116	889.3	1014.6	27.5	11.2	19.9	0.3	36.7	22	7.2	27	5	0	7.2	44	49	21	28	11	9	0	0	3.0	23	15.6	SW	20	7	14	11	6.0	81
HAVRE	788	922.5	1018.2	31.3	13.4	21.4	1.4	38.9	22	5.6	28	13	0			28	2	18	7	7	0	0	1.4	23	21.4	SW	25	11	12	8	5.1	88
HELENA	1167	882.5	1015.6	29.1	10.3	19.7	-0.8	33.8	22	5.6	27	2	0	6.7	53	40	15	22	9	11	0	0	1.3	27	19.2	N	-	8	16	7	6.7	93
KALISPELL	934	912.6	1016.3	29.1	10.1	19.6	0.2	34.4	-	2.6	27+	6	0	10.4	69	96	63	45	12	6	0	0	1.8	21	14.5	W	22	6	16	10	6.5	
MILES CITY	801	921.8	1016.6	31.2	15.4	23.4	0.9	37.8	24	8.3	28	17	0	8.9	44	20	-11		5	5			1.4	16								
MISSOULA	972	905.9	1016.4	25.9	8.8	17.3	-1.7	32.8	7	0.6	27	1	0	8.9	63	22	-1	5	4	8		0	1.4	29	21.9	S	22	8	18	12	5.9	60
NEBRASKA																																
GRAND ISLAND	561	951.2	1018.0	31.1	16.8	24.4	1.0	38.9	25	7.8	28	17	0	13.3	56	20	-45	11	7	4			3.0	16	12.5	S	9	10	9	7	4.2	
LINCOLN	359	974.6	1018.5	31.4	16.8	24.6	0.3	38.3	26	7.0	28	20	0	13.9	56	2	-81	2	2	4	0	0	2.5	16	13.4	N	27+	13	11	7	4.3	
NORFOLK	471	961.4	1015.8	31.2	16.8	24.0	0.8	38.3	26	8.9	28	18	0	13.3	55	17	-51	11	6	7	0	0	3.1	19	13.4	W	27	12	12	7	4.8	
NORTH PLATTE	848	919.7	1018.7	29.7	13.2	21.4	-1.3	36.7	26	7.7	28	11	0	12.2	61	73	20	24	8	11	0	0	2.1	24	17.2	NE	8	11	14	6	4.7	77
OMAHA	299	983.1	1016.9	31.2	16.5	24.0	1.4	38.9	26	8.9	28	18	0	16.7	64	14	-85	11	5	7	0	0	0.8	15	14.8	SW	14	10	11	8	4.8	70
SCOTTSBLUFF	1206	88.5	1014.5	31.5	13.1	22.3	1.3	37.2	26	5.1	28	16	0	11.1	56	20	-66	12	6	11			1.6	16	14.3	W	14	10	14	8	4.8	
VALENTINE	789			31.4	15.8	23.6	1.1	37.6	26	5.0	28	16	0			25	-35	13	7					16.5	S	8	14	12	7	4.4	80
NEVADA																																
ELKO	1539	846.3	1015.2	27.8	6.4	17.2	-2.2	34.4	29	2.2	16	5	0	1.7	48	23	-8	11	6	7			2.7	25	12.5	SE	22+	16	8	7	4.1	
ELY	1904	811.0	1013.2	27.3	4.4	15.9	-2.7	33.3	29	0.0	27	1	1	-1.7	34	4	-16	4	2	3			3.0	22	15.1	S	6	9	8	3	3.1	83
LAS VEGAS	659	935.7	1010.2	38.4	21.1	29.7	-1.1	42.8	30+	16.1	19+	30	0	0.1	17	0	-12	0	0	0			3.8	21	16.5	N	25	29	1	-	4.4	48
RENO	1342	866.9	1014.9	27.0	6.3	16.7	-2.7	37.4	31	1.7	16	5	0	4.4	49	16	10	16	4	3			1.8	33	13.4	SW	22+	13	5	8	3.9	83
WINNEMUCCA	1311	869.6	1014.7	28.2	8.1	18.7	-1.2	37.2	21	1.7	16	11	0	4.4	44	33	26	18	6	4			3.6	27	18.3	SW	22	19	3	4	4.1	69
NEW HAMPSHIRE																																
CONCORD	104	1005.1	1017.7	25.5	11.6	18.5	-1.1	33.3	26	-1.1	31	2	1	15.0	81	68	-6	20	11	2			3.4	33	18.6	NW	30	4	11	14	5.6	64
MT. WASHINGTON OBS	1909			4.8	5.3	8.7	0.3	21.0	21	-6.7	31	0	5			270	87	102	25	2	4.1	25			99.6Y	N	10	6	1	18	7.4	28
NEW JERSEY																																
ATLANTIC CITY	2	1016.3	1018.8	27.9	16.0	21.9	-1.1	33.3	2	4.4	31	2	0	16.1	73	119	-5	52	6	2			4.0	23	13.0	E	4	12	11	6	4.6	73
TRENTON CITY	3			28.4	14.8	21.9	-1.1	34.6	26+	1.7	31	2	0			127	12	76	7	4					17.9	NW	6					
NEWARK	7	1016.9	1018.1	28.3	18.8	23.6	-0.1	33.9	26	8.9	31	4	0	15.6	64	76	-33	36	8	4			3.3	28	16.5	E	4	11	12	6	5.2	
TRENTON	19			28.2	18.1	23.2	-0.1	34.9	26	8.9	31	3	0			64	-42	4	8						17.0	SW	9	11	10	9	4.4	64
NEW MEXICO																																
ALBUQUERQUE	1619	841.9	1014.4	31.3	16.4	23.9	-0.9	34.0	26+	13.9	31+	13	0	8.3	43	19	-15	6	3	10			3.7	16	15.1	N	6	15	8	7	4.1	7
CLAYTON	1515			31.1	14.7	22.4	0.0	33.9	7	10.0	29	9	0			26	-41	11	7														
ROSWELL	1111	892.3	1013.6	34.9	14.7	24.8	1.3	37.8	6	13.9	29	25	0	11.7	43	50	13	39	4	3			1.9	13	13.4	SW	2	13	15	3	4.3	87
NEW YORK																																
ALBANY	84	1007.8	1018.5	26.8	13.1	19.7	-1.2	31.2	22	3.9	31	1	0	5.6	79	128	55	46	13	4	0	0	1.8	28	13.4	N	16	5	6	14	5.1	57
BINGHAMTON	485	961.7	1017.1	23.6	13.4	18.6	-1.0	29.9	26	5.6	31	0	0	13.9	77	172	81	37	11	5	0	0	2.4	26	11.1	SW	3	2	6	14	6.5	60
BUFFALO	214	993.6	1019.1	24.7	14.7	19.7	-0.5	33.6	15	6.1	31		0	13.3	7	42	-48	31			0	0	1.2	33	13.1	SW	26	6	11	13	4.5	47
NEW YORK (CENTRAL PARK)	4	1015.2	1018.6	28.3	18.7	23.5	-0.3	34.4	26	10.0	31	4	0	16.1	68	166	64	108	8	4	0	0	4.4	36	12.3	N	4					58
NEW YORK (KENNEDY INTL)	4	1017.4	1018.3	28.4	18.8	23.6	-0.5	33.9	22	11.1	31	2	0	17.3	74	211	102	96	9	4	0	0	1.2	25	19.1	2	9	1	19	9	5.1	
NEW YORK (LA GUARDIA)	3	1017.3	1018.3	27.9	19.9	23.9	-0.1	33.9	22	11.1	31	2	0	16.1	64	151	87	85	7	4	0	0	3	16	23.2	NE	4	1	17	9	4.4	
ROCHESTER	167	999.3	1019.4	26.8	14.6	20.6	-0.5	31.7	26	6.1	31	0	0	13.3	67	77	2	47	7	3	0	0	2.8	26	14.2	SW	28	3	13	14	4.1	58
SYRACUSE	128	994.1	1018.7	24.3	13.4	18.9	-2.1	31.8	22	6.1	31	0	0	15.6	83	171	82	53	10	5	0	0	2.9	28	11.6	NW	14	8	8	15	4.0	58
NORTH CAROLINA																																
ASHEVILLE	652	944.6	1019.6	27.4	15.4	21.2	-1.4	30.0	28+	9.4	31			16.7	81	107	-7	41	9	5			1.6	1	8.1			3	14	9	5.4	60

CLIMATOLOGICAL DATA

METRIC UNITS

AUGUST 1976

State and Station	Elevation ground	Pressure: Station O	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile of 6 kilometers: Speed	Wind: Fastest mile of 6 kilometers: Direction	Wind: Fastest mile of 6 kilometers: Date	No. of days (sunrise to sunset): Clear 0.3	No. of days (sunrise to sunset): Partly cloudy 4.7	No. of days (sunrise to sunset): Cloudy 8.10	Sky cover tenths sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
NORTH CAROLINA																																
CAPE HATTERAS R	2	1018.3	1018.8	27.8	20.9	24.4	-0.9	30.6	1	13.9	6	0	0	20.6	81	298	126	122	12	7	T	0	1.2	5	16.5	24	9	9	11	11	5.9	46
CHARLOTTE	224	991.9	1018.7	30.2	18.8	24.5	-0.9	33.9	28+	12.2	31	11	0	17.2	68	23	-78	9	6	4	0	0	0.2	7	13.4	SW	7	9	10	12	5.4	70
GREENSBORO	273	988.2	1019.3	28.4	17.2	22.8	-1.6	33.3	13	9.4	31	4	0	17.2	75	67	-42	24	6	5	0	0	0.8	7	15.6	S	14	9	14	8	5.5	63
RALEIGH	132	1003.4	1018.8	29.8	18.4	24.1	-0.6	33.9	29	9.4	31	10	0	17.8	72	39	-87	14	6	3	0	0	.5	7	8.0	31	15	11	11	9	5.4	57
WILMINGTON	9	1017.3	1018.6	30.2	20.6	25.4	-1.0	33.9	1	15.0	31	6	0	21.7	84	242	69	113	11	8	0	0	1.2	7	10.3	E	20	4	10	17	6.5	58
NORTH DAKOTA																																
BISMARCK	502	955.6	1014.4	31.6	13.8	22.7	2.1	38.9	23+	6.1	6	15	0	10.6	51	8	-42	3	5	4	0	0	1.0	13	15.6	NW	27	12	12	9	4.4	81
FARGO	273	983.1	1015.2	30.8	15.3	23.1	2.4	41.1	18	7.8	6+	11	0	10.0	48	10	-62	3	8	4	0	0	0.0	16	20.6	N	9	11	16	4	4.3	79
WILLISTON	579	946.8	1014.1	29.3	13.4	21.4	1.1	38.9	23	3.3	28	6	0	10.0	54	27	-13	15	8	12	0	0	0.6	18	17.0	NW	27	10	14	7	4.9	72
OHIO																																
AKRON	368	976.3	1020.3	24.8	13.3	19.1	-2.2	30.6	21+	6.1	31+	0	0	15.0	78	51	-19	25	8	5	0	0	0.6	28	7.6	32	29	9	9	13	5.7	
CINCINNATI ABBE OB	232			28.4	15.8	22.1	-1.8	32.2	11	10.6	30+	1	0			110	33	62	5						5.8	SW	5					58
CLEVELAND	237	991.5	1020.4	26.8	14.4	20.2	-0.9	30.6	28+	7.2	30	0	0	15.6	76	89	13	27	10	3	0	0	0.5	29	8.9	SW	5	11	7	13	5.8	
COLUMBUS	247	990.5	1020.1	25.9	14.4	20.2	-2.0	30.6	23+	7.2	30	0	0	15.0	75	129	54	66	6	5	0	0	1.4	2	11.6	SW	25	11	8	12	5.4	63
DAYTON	303	984.1	1020.0	27.1	13.8	20.4	-2.3	30.2	12	6.1	30	1	0	13.9	69	48	-17	22	8	3	0	0	0.3	26	11.2	N	13	12	8	11	5.2	77
MANSFIELD	395			24.6	13.1	18.9	-3.4	28.3	28+	5.6	30	0	0	15.0	80	80	11	34	9	4	0	0	0.7	26	9.8	25	5	10	11	10	5.5	
TOLEDO	204	994.9	1019.9	28.1	12.1	20.1	-1.4	33.3	27	5.0	30	6	0	13.9	71	10	-68	6	4	3	0	0	0.6	31	9.4	W	5	12	7	12	5.2	63
YOUNGSTOWN	359	978.0	1020.2	26.9	12.9	18.9	-1.7	30.0	25	5.0	30	0	0	13.9	74	61	-21	33	8	4	0	0	0.4	27	8.0	23	29+	7	11	13	6.1	
OKLAHOMA																																
OKLAHOMA CITY	392	971.2	1016.5	34.7	20.1	27.4	0.1	39.4	13	16.7	21	25	0	16.1	53	37	-28	15	4	6	0	0	3.1	15	15.2	NW	13+	18	8	5	3.7	
TULSA	198	992.9	1016.8	33.2	19.7	26.5	-0.9	37.8	27	13.9	5	23	0	17.2	61	30	-45	12	7	6	0	0	2.5	15	12.5	NE	5	9	7	4	3.4	75
OREGON																																
ASTORIA	2	1017.3	1018.1	20.0	12.9	16.5	0.8	26.7	29	7.8	21	0	0	10.6	71	65	28	29	12	0	0	0	1.5	26	8.9	30	10	3	7	21	7.8	
BURNS U	1265			23.6	8.9	16.2	-2.7	33.3	31	1.7	26	4	0			50	39	10	13		0	0			23.2Y	SW	5	14	7	12	5.1	
EUGENE	109	1003.4	1017.0	25.8	12.0	18.9	0.0	33.3	31	6.7	26	4	0	12.2	79	52	37	22	10	0	0	0	0.8	28	9.4	36	28	5	12	14	6.6	
MEDFORD	396	969.2	1016.3	27.2	12.0	19.6	-1.7	36.1	31+	6.1	26	7	0	11.7	67	72	64	18	11	7	1	0	1.1	31	7.2	32	5	11	4	15	5.6	
PENDLETON	452	962.4	1015.5	26.6	13.1	19.8	-2.1	37.2	31	8.9	18+	4	0	11.1	63	45	36	15	11	5	0	0	0.9	26	10.3	26	25+	10	9	12	5.5	
PORTLAND	6	1015.9	1017.1	23.5	13.7	18.6	-0.6	30.0	29	9.4	18	0	0	12.2	71	84	63	30	10	6	0	0	1.3	32	8.0	NW	30+	6	9	16	7.1	59
SALEM	60	1009.5	1016.7	24.8	10.9	17.9	-1.1	31.7	30	6.1	26	0	0	12.2	74	48	34	16	9	1	0	0	0.5	26	8.0	24	7	7	9	15	6.5	
SEXTON SUMMIT R	1169	885.9	1016.6	20.3	10.5	15.4	-1.9	30.6	30	4.4	15	0	0			107	96	29	12		T	0	0.8	1	10.3	W	31+	12	4	15	5.5	
PACIFIC AREA																																
GUAM TAGUAC R	110			29.4	22.8	26.1	-0.1	31.1	31+	21.1	29+	0	0			620	311	156	30		0	0			10.7	E	15+	0	5	26	8.9	43
JOHNSTON	2	1013.2	1013.8	28.6	24.8	26.7	-0.6	29.4	21+	22.2	29	0	0	22.2	78	20	-46	6	12	2	0	0	7.7	8	15.2	E	6+	10	11	10	5.5	86
KOROR R	29	1006.1		32.1	24.0	27.1	-0.3	31.7	29+	22.2	15	0	0			423	31	89	26	8	0	0	1.8	28	12.5	NW	5	0	6	25	9.0	35
KWAJALEIN	2	1009.1		30.2	25.1	27.6	-0.4	31.1	29+	23.9	30	0	0			227	-32	30	27	2	0	0	3.3	9	9.4	9	27+	1	7	23	8.3	
MAJURO	3	1009.8		29.9	24.2	27.1	-0.4	30.6	31+	23.3	30+	0	0			212	-87	38	24		0	0	2.2	9	9.8	E	3	2	7	23	8.5	63
PAGO PAGO	4	1013.2	1013.3	28.3	23.6	26.0	0.3	29.4	30+	20.6	23+	0	0	21.7	77	104	-84	55	15	0	0	0	5.2	10	13.4	E	17	1	18	12	7.2	40
PONAPE R	37			30.7	22.4	26.6	-0.2	32.2	30+	21.1	28+	6	0			832	407	337	30	5	0	0			8.0	NE	8	0	5	26	8.7	48
TRUK MOEN ISLAND	2	1009.8		30.1	24.0	27.1	-0.1	31.7	30	22.2	21+	0	0			374	33	87	27	0	0	0	1.1	28	13.0	W	1	0	1	30	9.6	48
WAKE	3	1013.2	1013.6	31.5	24.8	28.2	0.1	32.8	25+	21.7	28	10	0	23.9	86	68	-93	28	18	0	0	0	5.9	11	12.1	E	30	11	15	5	5.0	87
YAP R	13	1007.5		29.8	22.9	26.4	-0.8	31.1	12	21.1	16+	0	0			414	29	91	27	8	0	0	0.6	26	11.2	W	6	0	7	24	8.9	57
PENNSYLVANIA																																
ALLENTOWN	118	1005.1	1019.0	27.6	15.7	21.7	-0.4	33.3	22	6.1	31	1	0	15.6	70	129	23	66	9	4	0	0	1.1	29	11.2	35	15	12	10	9	5.1	
ERIE	223	993.6	1020.0	24.1	14.8	19.4	-0.3	29.4	28+	7.8	31	0	0	15.6	83	36	-50	28	10	2	0	0	1.1	25	9.4	20	31+	10	8	13	5.7	
HARRISBURG	103	1007.5	1020.0	27.4	17.4	22.4	-0.8	31.7	26+	7.2	31	0	0			83	2	31	9	4	0	0	1.1	30	9.8	NW	13	13	8	10	4.8	74
PHILADELPHIA	2	1017.6	1018.7	28.9	18.6	23.8	0.0	33.9	22	10.6	31	5	0	17.2	69	55	-49	31	7	4	0	0	1.7	28	13.4	N	9	12	14	5	4.5	72
PITTSBURGH	347	977.0	1020.5	24.3	12.7	18.5	-2.7	28.9	25+	5.6	31	0	0			32	-48	14	4	2	0	0	0.8	30	10.3	32	13	10	9	12	5.5	47
SCRANTON	283	985.4	1019.1	26.0	15.2	20.6	-0.5	32.2	26	5.6	31	1	0	15.0	72	65	-16	19	9	2	0	0	0.7	28	9.8	W	30	11	10	10	5.2	61
WILLIAMSPORT	160	1000.3	1019.3	27.0	15.4	21.2	-0.4	31.7	22	7.8	31	0	0	16.7	79	81	-7	36	10	6	0	0	1.3	30	8.0	33	29+	12	8	12	5.7	
RHODE ISLAND																																
BLOCK ISLAND	34			24.0	16.9	20.4	-0.2	32.2	22	10.0	31	1	0			228	130	82	9		0	0										
PROVIDENCE	16	1015.6	1018.1	26.6	15.7	21.1	-0.2	36.1	22	5.6	31	4	0	16.7	80	178	79	89	10	5	0	0	0.9	25	16.5	16	10	10	10	11	5.9	60
SOUTH CAROLINA																																
CHARLESTON	12	1016.3	1018.2	29.7	20.5	25.1	-1.3	33.3	1	17.2	5	5	0	20.6	81	133	-31	30	13	5	0	0	.7	7	14.3	35	16	3	19	9	6.6	76

CLIMATOLOGICAL DATA

METRIC UNITS

AUGUST 1975

State and Station	Elevation ground	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Number of days: Max 32.2 °C and above	Number of days: Min 0 °C and below	Average dew point	Average relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	Number of days: 25 mm or more	Number of days: With thunderstorm	Snow, ice pellets: Total	Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Resultant direction	Fastest mile 1.6 kilometers: Speed	Fastest mile 1.6 kilometers: Direction	Fastest mile 1.6 kilometers: Date	No. of days (sunrise to sunset): Clear 0.3	Partly cloudy 4.7	Cloudy 8.10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm										
SOUTH CAROLINA																																
CHARLESTON	3			29.3	22.3	25.8	-1.3	33.3	29+	19.4	20+	5	0			135	-18	78	12		0												
COLUMBIA	65	1016.2	1018.2	30.2	20.0	25.1	-0.7	36.1	06+	13.9	31+	18	0	19.4	72	26	-117	14	6	8	0	0	1.0	06	29.4	26	20	4	17	9	5.8	65
GREENVILLE-SPARTANBG	292	984.4	1018.4	29.8	18.0	24.1	-1.2	33.3	23	14.8	31	6	0	17.8	71	53	-50	23	11	5	0	0	1.0	4	31.0	26	13	4	17	9	6.9	54
SOUTH DAKOTA																																
ABERDEEN	395	968.8	1014.8	32.4	16.3	24.4	2.9	40.0	06+	7.8	4	14	6	11.7	48	17	-37	5	8	6	0	0	3.9	16	42.5	26	16	15	11	5	4.3	
HURON	390	968.5	1014.2	30.8	15.9	23.4	1.7	40.0	06	6.1	5	16	0	11.7	51	4	-47	1	5	4	0	0	3.0	26	44.8	26	20+	10	16	5	4.1	69
RAPID CITY	964	906.2	1014.8	31.7	14.4	23.0	0.6	37.8	10	6.1	28	13	0	10.0	51	33	-4	11	11	12	0	0	3.4	18	71.2	26	3	13	14	4	4.1	
SIOUX FALLS	432	966.1	1018.7	31.4	16.1	23.8	1.4	37.8	6	8.9	28+	13	0	12.8	57	33	-39	14	4	5	1	0	3.4	15	71.7	26	18	14	9	4	4.4	
TENNESSEE																																
BRISTOL	459	966.1	1019.6	28.3	15.7	22.0	-1.4	33.3	24	8.9	31	4	0	16.1	74	58	-37	9	11	6	0	0	3.6	4	37.2	18	16	12	12	6	4.9	
CHATTANOOGA	203	993.9	1018.2	31.8	18.7	25.2	-0.8	34.4	24	13.3	26	10	0	17.8	71	35	-47	18	6	4	0	0	3.8	5	40.3	24	24	12	14	4	4.7	33
KNOXVILLE	299	984.1	1018.7	29.9	17.9	23.8	-1.3	37.8	25	13.3	31	5	0	18.3	76	51	-32	21	8	5	0	0	3.4	2	43.1	26	6	11	8	11	4.9	17
MEMPHIS	79	1008.1	1018.2	31.9	24.0	27.9	-0.6	36.6	14	16.1	9	20	0	17.2	60	22	-63	16	5	4	0	0	3.3	6	48.3	26	28	18	11	2	3.7	72
NASHVILLE	180	997.3	1018.6	29.7	17.4	23.6	-2.3	33.3	24+	11.1	31	6	0	17.8	75	204	122	113	6	5	0	0	3.8	1	41.8	26	26	14	11	5	4.1	17
OAK RIDGE R	276			28.9	16.9	22.9	-2.1	33.3	25	11.1	31	6	0			124	26	76	6		0	0			38.8	SW		15	5	11	4.3	
TEXAS																																
ABILENE	544	993.9	1015.3	34.2	20.9	27.6	-1.1	38.3	30	17.2	26+	25	0	15.6	52	37	-15	26	6	7	0	0	3.0	17	52.4	2	29+	21	5	5	3.3	79
AMARILLO	1098	894.3	1015.6	31.4	16.4	23.9	-1.4	35.0	13	12.2	25	13	0	12.2	57	45	-29	2	8	9	0	0	4.1	19	73.7	2	14+	11	7	13	3.8	81
AUSTIN	182	994.6	1016.1	34.6	22.5	28.6	-0.7	37.8	24	16.0	21	30	0	19.4	61	20	-36	14	3	6	0	0	3.5	16	45.0	2	26	9	7	5	3.1	9
BROWNSVILLE	6	1015.2	1015.7	30.6	23.3	27.9	-1.2	34.4	14+	21.1	1	24	0	22.0	75	85	18	23	4	4	0	0	3.1	13	38.6	2	19	13	13	5	5.5	72
CORPUS CHRISTI	12	1014.6	1016.1	34.0	22.7	28.3	-1.6	37.2	24	21.1	29+	29	0	22.8	75	22	-59	15	5	5	0	0	3.8	2	41.8	2	29	13	11	7	4.6	72
DALLAS - FORT WORTH	168	995.3	1016.0	35.7	22.0	29.0	-0.4	38.9	24	17.8	19	29	0	17.8	54	121	63	103	6	5	0	0	3.5	15	52.4	2	6	16	6	9	3.9	77
DEL RIO	319	979.3	1014.6	33.8	21.0	27.5	-2.6	36.6	24+	18.4	21+	30	0	18.9	63	11	-20	11	2	4	0	0	3.8	17	81.4	2	16	16	12	3	3.7	
EL PASO	1194	883.8	1012.5	34.6	17.3	25.9	-1.6	38.9	6	13.4	30	27	0	11.1	43	6	-23	3	6	4	0	0	3.7	11	52.4	2	27+	12	12	7	4.4	81
GALVESTON	2			30.9	25.3	28.1	-0.4	33.9	7+	22.2	28	4	0			36	-75	18	8						46.6	2	26					
HOUSTON INTERCON	29	1012.9	1016.7	34.4	23.4	28.9	-1.1	37.8	7	17.2	4	29	0	20.6	73	40	-70	27	5	9	0	0	3.6	11	49.4	2	26+	12	14	4	4.1	77
LUBBOCK	992	900.2	1015.4	32.4	18.8	25.6	-0.3	37.2	5	15.0	29+	18	0	13.9	5	51	3	21	9	7	0	0	3.7	16	61.2	11	31	23	7	1	3.6	80
MIDLAND	869	910.1	1014.4	33.7	18.3	26.0	-1.7	37.8	5	15.0	26	25	0	13.3	49	21	+17	9	3	3	0	0	3.4	16	52.0	2	28	16	11	4	4.1	77
PORT ARTHUR	5	1016.3		33.4	21.3	27.3	-1.1	36.1	7	17.8	4	27	0	22.2	79	65	+79	19	9	14	0	0	3.4	7	41.8	2	6+	12	12	6	4.7	72
SAN ANGELO	580	949.9	1015.1	33.8	20.2	27.0	-2.1	36.7	10	17.2	26+	27	0	16.7	58	36	+1	17	5	7	0	0	3.4	14	43.5	15	28	21	5	5	4.1	74
SAN ANTONIO	240	988.5	1015.9	33.2	21.9	27.6	-1.7	35.6	10+	18.9	24+	25	0	20.0	66	53	+8	24	6	5	0	0	3.7	15	52.4	2	18+	12	12	6	4.1	74
VICTORIA	32	1012.2	1016.4	33.8	22.3	28.1	-1.1	36.7	9	20.0	24+	27	0	22.2	74	70	+16	19	8	8	0	0	3.1	12	47.9	2	26	9	7	5	4.1	
WACO	153	999.3	1016.0	36.7	22.8	29.8	-0.1	40.6	8	18.3	28	30	0	19.4	59	6	+40	3	3	3	0	0	3.8	13	49.1	15	25	23	3	5	3.1	
WICHITA FALLS	303	979.7	1015.3	37.1	20.8	29.0	-0.7	41.7	10+	17.2	19	29	0	16.7	53	61	17	53	6	4	0	0	3.0	15	71.1	15	29	21	5	5	3.1	
UTAH																																
ALTA	2533	847.3	1013.4	21.1	9.6	15.3	-2.2	25.0	3	4.4	28	0	0			4	+13	2	2						73.0	26	22	24		7	2.7	41
SALT LAKE CITY	1286	872.3	1013.4	30.7	14.0	22.4	-1.2	35.0	24	6.1	27	11	0	6.1	39	21	+3	14	5	5	1	0	3.8	13	55.6	1	22	18	4	4	3.1	71
WENDOVER	291	971.3	1014.0	29.2	16.7	22.9	-2.1	35.0	25	11.1	16	6	0	3.3	31	29	20	21	5				3.5	5								
VERMONT																																
BURLINGTON	101	1005.8	1018.1	24.4	13.1	18.7	-0.9	31.1	22	4.7	31	0	0	15.0	74	129	25	28	18	5	1	0	4.7	2	54.0	1	29	7	5	19	6.4	59
VIRGINIA																																
LYNCHBURG	279	986.1		29.1	16.6	22.9	-0.7	33.9	13	9.4	31	7	0			27	-76	15	5				3.6	1	41.3	26	18	14	11	6	4.4	71
NORFOLK	7	1018.0	1019.1	28.8	19.9	24.4	-0.6	33.9	24+	13.3	31	9	0	18.3	71	67	+84	27	8				3.8	1	34.3	26	4	10	8	13	4.1	
RICHMOND	51	1012.5	1019.0	31.2	17.3	24.3	-0.3	36.1	13	8.3	31	16	0	17.8	71	34	+94	14	5	4	0	0	3.6	5	41.6	26	14	7	13	11	6.1	80
ROANOKE	350	978.0	1019.6	29.4	16.1	22.8	-1.1	33.9	24+	7.2	31	8	0	15.6	74	54	+50	27	6				3.4	32	49.1	26	14	11	13	7	4.4	
WALLOPS ISLAND	3			26.8	18.3	23.1	-0.9	30.6	23	12.8	31	0	0			218	124	83	5						76.8	SW	9					
WASHINGTON																																
OLYMPIA	59	1009.8	1017.1	24.5	12.4	18.4	-2.2	27.2	11	5.1	18	0	0	11.7	86	69	39	31	11				3.1	2	34.9	18	15	1	7	23	8.6	
SEATTLE	54	1010.0	1017.6	24.8	12.0	18.4	-2.4	29.0	24+	4.4	21	0	0	11.7	87	105	35	36	11				3.1	6	37.0	18	14	1	6	24	8.8	64
SEATTLE-TACOMA	6			24.6	13.9	19.3	-1.9	29.6	11	11.7	26+	0	0	12.8	77	69	41	25	12						31.0	SW	25					
SPOKANE	728	931.9	1014.7	29.1	11.1	20.0	-1.4	34.4	31	6.1	26	1	0	9.4	61	44	32	17	13	4			3.6	16	38.5	26	6	7	7	17	6.1	72
STAMPEDE PASS 2	1204	881.1		19.7	6.3	13.0	-1.1	23.3	26	3.3	26	0	0			143	83	34	12													
WALLA WALLA	389			31.6	14.4	23.1	-2.1	39.7	31	9.4	27	6	0			39	27	9	4						45.0	SE	6					
YAKIMA	325	976.4	1014.7	31.1	11.9	21.5	-1.3	36.1	31	3.9	26	4	0	9.4	54	13	4	7	4	2			3.4	26	31.0	1	14	1	6	10	6.3	

CLIMATOLOGICAL DATA

METRIC UNITS

AUGUST 1976

State and Station	Elevation ground	Pressure: Station level	Pressure: Sea level	Temperature: Average max.	Temperature: Average min.	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Snow, ice pellets: Total	Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
WEST INDIES																																
SAN JUAN P.R.	4	1013.9	1016.1	31.7	25.6	28.6	1.2	34.4	24	23.3	27+	8	0	21.1	65	130	-47	53	13	5	0	0	3.1	9	13.0	SE	2	4	21	6	6.6	72
WEST VIRGINIA																																
BECKLEY	768	933.3	1020.4	24.6	13.2	18.9	-1.6	29.4	24	6.1	31	0	0	13.9	76	44	-52	19	6	3	0	0	1.1	22	8.0	27	15+	4	8	14	6.1	
CHARLESTON	286	986.5	1020.1	27.4	14.9	21.2	-1.9	32.8	25+	7.2	31	4	0	15.6	75	57	-37	28	10	5	0	0	1.3	36	7.6	25	13	8	13	10	5.7	
ELKINS	594	950.6		26.1	11.4	18.7	-0.9	31.7	24	3.3	30	0	0			28	-74	13	7		0	0						5	14	12	6.3	
HUNTINGTON	252	989.8	1019.6	27.9	16.7	22.3	-1.0	32.8	25+	10.0	31	3	0	16.1	73	145	60	57	8	8	0	0	0.4	7	9.4		13	6	9	16	6.6	
PARKERSBURG U	187			27.2	15.7	21.4	-1.8	32.2	25+	9.4	31	3	0			49	-36	16	6		0	0			9.8	NE	28					67
WISCONSIN																																
GREEN BAY	208	993.9	1019.4	26.8	11.9	19.4	-0.4	36.7	27	5.0	29	1	0	13.3	71	29	-37	14	6	6	0	0	.7	23	17.4	NW	31	13	11	7	4.5	75
LA CROSSE	198	995.6	1019.9	28.8	15.2	22.0	0.1	35.0	22	6.7	16	6	0	13.9	65	14	-63		4	5	0	0	1.4	16								
MADISON	262	988.5	1019.5	28.9	11.9	20.4	0.1	34.4	27+	4.4	16	7	0	12.2	63	51	-27	21	6	7	0	0	1.0	19	10.7	SW	11+	13	8	10	4.7	74
MILWAUKEE	205	994.9	1019.7	26.3	15.8	21.1	0.4	35.6	27	10.0	8	4	0	15.0	71	52	-16	31	6	7	0	0	0.5	21	13.9	SW	27	13	11	7	4.5	72
WYOMING																																
CASPER	1627	840.2	1014.3	29.1	11.3	20.2	-0.7	33.3	22	2.8	27	4	0	3.9	39	8	-7	4	5	4	0	0	2.3	23	14.8	30	26	16	11	4	3.8	
CHEYENNE	1867	815.8	1015.4	25.9	10.7	18.3	-1.4	30.6	26	5.0	27	0	0	4.4	45	36	-1	19	11	17	0	0	1.7	25	21.0	W	26	8	13	10	5.5	56
LANDER	1696	832.0	1014.4	27.9	10.9	19.4	-1.1	32.8	22	5.0	27	2	0	2.2	36	10	-1	11	3	6	0	0	1.8	23	17.9	SW	23+	15	12	4	3.7	63
SHERIDAN	1208	879.8	1014.3	29.7	10.1	19.9	-0.7	35.0	22	1.7	27	11	0	7.8	49	20	-4	12	10	11	0	0	.4	23	14.8	NW	8	15	8	8	4.4	78

HEATING DEGREE DAYS

(Base: 65°F.)

AUGUST 1976

State and Station	Current season: This month	Current season: Period July through this month	Normal: July through this month
ALABAMA			
BIRMINGHAM	0	0	0
HUNTSVILLE	0	0	0
MOBILE	0	0	0
MONTGOMERY	0	0	0
ALASKA			
ANCHORAGE	262	446	502
ANNETTE	194	410	442
BARROW	844	1660	1464
BARTER ISLAND	779	1599	1584
BETHEL	328	637	713
BETTLES	204	423	637
BIG DELTA	189	287	503
COLD BAY	434	897	887
FAIRBANKS	188	304	452
GULKANA	2	2	620
HOMER	376	718	785
JUNEAU	275	535	620
KING SALMON	342	721	673
KODIAK	296	600	651
KOTZEBUE	296	726	818
MC GRATH	269	462	576
NOME	417	919	952
ST. PAUL ISLAND	532	1142	1141
SUMMIT	383	751	911
TALKEETNA	265	444	542
WAINWRIGHT	309	650	747
VALDEZ	346	631	766
YAKUTAT	330	671	735
ARIZONA			
FLAGSTAFF	71	88	145
PHOENIX	0	0	0
TUCSON	0	0	0
WINSLOW	0	0	0
YUMA	0	0	0
ARKANSAS			
FORT SMITH	0	0	0
LITTLE ROCK	0	0	0
CALIFORNIA			
BAKERSFIELD	0	0	0
BISHOP	5	6	5
BLUE CANYON	199	220	85
EUREKA U	213	439	418
FRESNO	0	1	0
LONG BEACH	0	0	0
LOS ANGELES	0	0	34
LOS ANGELES U	0	0	0
MT SHASTA R	142	165	101
OAKLAND	20	66	154
RED BLUFF	0	0	0
SACRAMENTO	0	0	0
SANDBERG R	89	95	17
SAN DIEGO	0	0	4
SAN FRANCISCO	38	110	177
SAN FRANCISCO U	86	259	379
SANTA MARIA	30	74	214
STOCKTON	0	0	0
COLORADO			
ALAMOSA	132	156	151
COLORADO SPRINGS	11	11	22
DENVER	7	7	0
GRAND JUNCTION	0	0	0
PUEBLO	2	2	0
CONNECTICUT			
BRIDGEPORT	7	7	0
HARTFORD	16	16	12
DELAWARE			
WILMINGTON	4	4	0
DIST. OF COLUMBIA			
WASHINGTON DULLES	8	8	0
WASHINGTON NATIONAL	0	0	0
FLORIDA			
APPALACHICOLA	0	0	0
DAYTONA BEACH	0	0	0
FORT MYERS	0	0	0
JACKSONVILLE	0	0	0
KEY WEST	0	0	0
LAKELAND U	0	0	0
MIAMI	0	0	0
ORLANDO	0	0	0
PENSACOLA	0	0	0
TALLAHASSEE	0	0	0
TAMPA	0	0	0
WEST PALM BEACH	0	0	0
GEORGIA			
ATHENS	0	0	0
ATLANTA	0	0	0
AUGUSTA	0	0	0
COLUMBUS	0	0	0
MACON	0	0	0
ROME	0	0	0
SAVANNAH	0	0	0
IDAHO			
BOISE	36	39	12
LEWISTON	17	17	17
POCATELLO	34	35	20
ILLINOIS			
CAIRO		0	0
CHICAGO O HARE	9	9	25
CHICAGO MIDWAY	7	7	8
MOLINE	5	5	11
PEORIA	9	9	9
ROCKFORD	17	19	22
SPRINGFIELD	3	3	8
INDIANA			
EVANSVILLE	0	0	0
FORT WAYNE	11	11	12
INDIANAPOLIS	2	2	5
SOUTH BEND	19	19	30
IOWA			
BURLINGTON	4	4	8
DES MOINES	1	1	13
DUBUQUE	14	14	38
SIOUX CITY	1	1	10
WATERLOO	26	28	33
KANSAS			
CONCORDIA	0	0	5
DODGE CITY	0	0	0
GOODLAND	3	3	0
TOPEKA	0	0	0
WICHITA	0	0	0
KENTUCKY			
COVINGTON	4	4	0
LEXINGTON	4	5	0
LOUISVILLE	0	0	0
LOUISIANA			
ALEXANDRIA	0	0	0
BATON ROUGE	0	0	0
LAKE CHARLES	0	0	0
NEW ORLEANS	0	0	0
SHREVEPORT	0	0	0
MAINE			
CARIBOU	132	216	204
PORTLAND	73	118	82
MARYLAND			
BALTIMORE	0	0	0
MASSACHUSETTS			
BLUE HILL OBS R	37	44	20
BOSTON	10	11	8
WORCESTER	46	63	34
MICHIGAN			
ALPENA	70	97	185
DETROIT	8	8	11
DETROIT METRO	15	16	21
FLINT	33	34	50
GRAND RAPIDS	32	32	35
HOUGHTON LAKE	92	116	153
LANSING	57	61	36
MARQUETTE U	79	115	139
MUSKEGON	43	48	52
SAULT STE MARIE	90	166	221
MINNESOTA			
DULUTH	112	147	171
INTERNATIONAL FALLS	94	134	178
MINNEAPOLIS	4	4	32
ROCHESTER	26	27	56
ST CLOUD	37	44	55
MISSISSIPPI			
JACKSON	0	0	0
MERIDIAN	0	0	0
MISSOURI			
COLUMBIA REGIONAL	0	0	0
KANSAS CITY	0	0	0
ST JOSEPH	0	0	5
ST LOUIS	0	0	0
SPRINGFIELD	0	0	6
MONTANA			
BILLINGS	6	6	25
GLASGOW	10	19	45
GREAT FALLS	20	23	60
HAVRE	13	17	58
HELENA	45	60	90
KALISPELL	104	148	198
MILES CITY	3	4	25
MISSOULA	89	114	110
NEBRASKA			
GRAND ISLAND	0	0	6
LINCOLN	0	0	0
NORFOLK	1	1	17
NORTH PLATTE	13	13	15
OMAHA	0	0	6
SCOTTSBLUFF	8	8	8
VALENTINE	8	8	18
NEVADA			
ELKO	92	92	87
ELY	130	161	85
LAS VEGAS	0	0	0
RENO	116	131	67
WINNEMUCCA	45	53	48
NEW HAMPSHIRE			
CONCORD	84	121	61
MT WASHINGTON OBS	534	1081	1060
NEW JERSEY			
ATLANTIC CITY	17	17	0
ATLANTIC CITY	3	3	0
NEWARK	4	4	0
TRENTON U	5	5	0
NEW MEXICO			
ALBUQUERQUE	0	0	0
CLAYTON	2	2	0
ROSWELL	0	0	0
NEW YORK			
ALBANY	40	47	31
BINGHAMTON	62	93	61
BUFFALO	35	50	45
NEW YORK U	4	4	0
NEW YORK KENNEDY	6	6	0
NEW YORK LA GUARDIA	2	2	0
ROCHESTER	27	38	35
SYRACUSE	45	69	29
NORTH CAROLINA			
ASHEVILLE	3	5	0
CAPE HATTERAS R	0	0	0
CHARLOTTE	0	0	0
GREENSBORO	1	1	0
RALEIGH	0	0	0
WILMINGTON	0	0	0
NORTH DAKOTA			
BISMARCK	6	17	53
FARGO	9	22	46
WILLISTON	11	21	57
OHIO			
AKRON	56	71	29
CINCINNATI ABBE OB	2	2	0
CLEVELAND	25	25	26
COLUMBUS	25	26	8
DAYTON U	25	25	7
MANSFIELD	56	64	10
TOLEDO	33	34	23
YOUNGSTOWN	59	77	31
OKLAHOMA			
OKLAHOMA CITY	0	0	0
TULSA	0	0	0
OREGON			
ASTORIA	105	222	314
BURNS U	150	175	98
EUGENE	38	48	92
MEDFORD	31	40	32
PENDLETON	42	46	19
PORTLAND	41	56	104
SALEM	63	106	96
SEXTON SUMMIT R	203	289	212
PENNSYLVANIA			
ALLENTOWN	9	10	6
ERIE	42	70	67
HARRISBURG	5	5	0
PHILADELPHIA	2	2	0
PITTSBURGH	59	74	23
PITTSBURGH U	18	20	6
SCRANTON	25	33	25
WILLIAMSPORT	12	12	14
RHODE ISLAND			
BLOCK ISLAND	14	17	20
PROVIDENCE	23	25	10
SOUTH CAROLINA			
CHARLESTON	0	0	0
CHARLESTON U	0	0	0
COLUMBIA	0	0	0
GRNVLLE-SPRTNBRG	0	0	0
SOUTH DAKOTA			
ABERDEEN	2	5	33
HURON	4	9	22
RAPID CITY	6	9	30
SIOUX FALLS	0	1	28
TENNESSEE			
BRISTOL			
CHATTANOOGA			
KNOXVILLE			0
MEMPHIS			
NASHVILLE			
OAK RIDGE			0
TEXAS			
ABILENE			
AMARILLO			
AUSTIN			
BROWNSVILLE			0
CORPUS CHRISTI			
DALLAS FT WORTH			
DEL RIO			
EL PASO			0
GALVESTON			
HOUSTON INTERCON			0
LUBBOCK			
MIDLAND			
PORT ARTHUR			
SAN ANGELO			0
SAN ANTONIO			
VICTORIA			
WACO			
WICHITA FALLS			
UTAH			
MILFORD	6	6	7
SALT LAKE CITY	7	7	5
WENDOVER	7	7	0
VERMONT			
BURLINGTON	68	88	69
VIRGINIA			
LYNCHBURG	4	4	0
NORFOLK	0	0	0
RICHMOND	1	1	0
ROANOKE	3	3	0
WALLOPS ISLAND	1	1	0
WASHINGTON			
OLYMPIA	127	231	192
QUILLAYUTE	207	403	389
SEATTLE	66	98	120
SEATTLE-TACOMA	52	76	102
SPOKANE	71	91	68
STAMPEDE PASS R	353	673	577
WALLA WALLA U	24	25	17
YAKIMA	53	79	57
WEST VIRGINIA			
BECKLEY	49	73	48
CHARLESTON	9	9	6
ELKINS	44	68	56
HUNTINGTON	1	1	0
PARKERSBURG U	5	5	0
WISCONSIN			
GREEN BAY	56	58	76
LA CROSSE	14	17	27
MADISON	40	44	55
MILWAUKEE	21	23	31
WYOMING			
CASPER	14	17	30
CHEYENNE	44	55	53
LANDER	16	17	23
SHERIDAN	20	21	39

COOLING DEGREE DAYS

(Base 65°F.)

AUGUST 1976

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM	376	1192	1571
HUNTSVILLE	360	1065	1488
MOBILE	504	2032	2016
MONTGOMERY	436	1420	1784
ALASKA			
ANCHORAGE	0	3	0
ANNETTE	1	17	14
BARROW	0	0	0
BARTER ISLAND	0	0	0
BETHEL	0	0	0
BETTLES	5	27	17
BIG DELTA	12	36	34
COLD BAY	0	0	0
FAIRBANKS	14	39	52
GULKANA			
HOMER	0	0	0
JUNEAU	3	6	0
KING SALMON	0	0	0
KODIAK	0	5	0
KOTZEBUE	0	0	0
MC GRATH	0	2	14
NOME	1	1	0
ST. PAUL ISLAND	0	0	0
SUMMIT	0	0	0
TALKEETNA	4	5	6
UNALAKLEET	2	2	0
VALDEZ	0	0	0
YAKUTAT	0	0	0
ARIZONA			
FLAGSTAFF	13	98	134
PHOENIX	804	3037	2678
TUCSON	636	2201	2149
WINSLOW	298	965	1035
YUMA	860	2964	3120
ARKANSAS			
FORT SMITH	388	1162	1669
LITTLE ROCK	434	1340	1608
CALIFORNIA			
BAKERSFIELD	445	1916	1711
BISHOP	167	742	903
BLUE CANYON	50	228	257
EUREKA U	0	0	0
FRESNO	246	1136	1338
LONG BEACH	295	896	644
LOS ANGELES	141	455	378
LOS ANGELES U	212	747	765
MT SHASTA R	38	193	255
OAKLAND	29	131	70
RED BLUFF	375	1513	1513
SACRAMENTO	270	1087	911
SANDBERG R	131	533	630
SAN DIEGO	240	641	468
SAN FRANCISCO	23	136	56
SAN FRANCISCO U	15	113	9
SANTA MARIA	25	117	45
STOCKTON	288	1009	1000
COLORADO			
ALAMOSA	0	26	88
COLORADO SPRINGS	114	407	423
DENVER	176	615	566
GRAND JUNCTION	324	1011	1003
PUEBLO	239	776	880
CONNECTICUT			
BRIDGEPORT	266	691	642
HARTFORD	208	766	544
DELAWARE			
WILMINGTON	278	891	861
DIST.OF COLUMBIA			
WASHINGTON DULLES	215	707	831
WASHINGTON NATIONAL	370	1360	1204
FLORIDA			
APPALACHICOLA U	472	1681	1998
DAYTONA BEACH	471	1898	2077
FORT MYERS	531	2395	2578
JACKSONVILLE	462	1714	1944
KEY WEST	598	3205	3366
LAKELAND U	535	2434	2365
MIAMI	530	2833	2752
ORLANDO	529	2384	2300
PENSACOLA	480	1787	2073
TALLAHASSEE	526	1848	1975
TAMPA	517	2268	2402
WEST PALM BEACH	509	2451	2577
GEORGIA			
ATHENS	376	1220	1430
ATLANTA	346	1084	1305
AUGUSTA	419	1429	1635
COLUMBUS	460	1516	1729
MACON	457	1568	1857
ROME	396	1148	1338
SAVANNAH	416	1570	1834
HAWAII			
HILO	355	2003	1978
HONOLULU	498	2830	2713
KAHULUI	456	2446	2404
LIHUE	450	2816	2385
IDAHO			
BOISE	130	478	638
LEWISTON	178	543	584
POCATELLO	70	344	413
ILLINOIS			
CAIRO U	360	1280	1530
CHICAGO O HARE	196	702	601
CHICAGO MIDWAY	218	805	822
MOLINE	221	775	810
PEORIA	180	724	866
ROCKFORD	159	590	655
SPRINGFIELD	214	900	981
INDIANA			
EVANSVILLE	274	1004	1182
FORT WAYNE	140	622	664
INDIANAPOLIS	205	723	859
SOUTH BEND	150	642	625
IOWA			
BURLINGTON	190	732	892
DES MOINES	283	926	837
DUBUQUE	144	534	564
SIOUX CITY	294	873	858
WATERLOO	175	608	630
KANSAS			
CONCORDIA	443	1186	1132
DODGE CITY	466	1291	1226
GOODLAND	275	803	829
TOPEKA	376	1103	1180
WICHITA	464	1207	1429
KENTUCKY			
COVINGTON	202	778	935
LEXINGTON	205	720	1026
LOUISVILLE	294	1028	1083
LOUISIANA			
ALEXANDRIA	491	1764	1754
BATON ROUGE	501	1828	2025
LAKE CHARLES	503	1847	2106
NEW ORLEANS	518	1919	2078
SHREVEPORT	432	1500	2004
MAINE			
CARIBOU	65	227	128
PORTLAND	93	303	241
MARYLAND			
BALTIMORE	284	1026	962
MASSACHUSETTS			
BLUE HILL OBS R	150	566	424
BOSTON	231	826	600
WORCESTER	119	427	363
MICHIGAN			
ALPENA	112	339	208
DETROIT	231	864	668
DETROIT METRO	182	650	593
FLINT	140	516	405
GRAND RAPIDS	161	589	533
HOUGHTON LAKE	86	284	242
LANSING	121	510	495
MARQUETTE U	166	336	209
MUSKEGON	118	414	431
SAULT STE MARIE	88	155	139
MINNESOTA			
DULUTH	117	245	176
INTERNATIONAL FALLS	98	254	176
MINNEAPOLIS	269	871	555
ROCHESTER	183	601	453
ST CLOUD	197	517	414
MISSISSIPPI			
JACKSON	481	1596	1860
MERIDIAN	389	1200	1819
MISSOURI			
COLUMBIA REGIONAL	326	938	1098
KANSAS CITY	399	1093	1227
ST JOSEPH	329	1024	1165
ST LOUIS	298	1075	1261
SPRINGFIELD	305	900	1177
MONTANA			
BILLINGS	200	498	460
GLASGOW	172	402	409
GREAT FALLS	116	347	303
HAVRE	193	451	368
HELENA	45	161	237
KALISPELL	44	118	108
MILES CITY	292	780	682
MISSOULA	41	151	178
NEBRASKA			
GRAND ISLAND	344	965	936
LINCOLN	354	1024	1032
NORFOLK	324	954	846
NORTH PLATTE	192	506	742
OMAHA	358	1093	1044
SCOTTSBLUFF	240	763	620
VALENTINE	306	805	685
NEVADA			
ELKO	24	192	316
ELY	2	123	191
LAS VEGAS	641	2291	2348
RENO	34	203	305
WINNEMUCCA	71	433	382
NEW HAMPSHIRE			
CONCORD	99	410	332
MT WASHINGTON OBS	0	0	0
NEW JERSEY			
ATLANTIC CITY	221	688	766
ATLANTIC CITY U	210	605	706
NEWARK	305	983	895
TRENTON	281	942	853
NEW MEXICO			
ALBUQUERQUE	319	999	1149
CLAYTON	240	643	686
ROSWELL	478	1566	1354
NEW YORK			
ALBANY	120	454	532
BINGHAMTON	82	286	341
BUFFALO	119	392	401
NEW YORK U	299	968	923
NEW YORK KENNEDY	253	704	751
NEW YORK LA GUARDIA	322	1034	915
ROCHESTER	138	510	486
SYRACUSE	83	326	497
NORTH CAROLINA			
ASHEVILLE	170	508	756
CAPE HATTERAS R	344	1199	1200
CHARLOTTE	351	1095	1326
GREENSBORO	257	957	1147
RALEIGH	330	1283	1177
WILMINGTON	403	1618	1578
NORTH DAKOTA			
BISMARCK	257	609	460
FARGO	283	679	452
WILLISTON	185	469	397
OHIO			
AKRON	101	402	566
CINCINNATI ABBE OB	221	835	1027
CLEVELAND	138	559	544
COLUMBUS	135	581	719
DAYTON U	147	640	821
MANSFIELD	91	386	717
TOLEDO	137	563	615
YOUNGSTOWN	100	433	469
OKLAHOMA			
OKLAHOMA CITY	512	1399	1556
TULSA	461	1381	1612
OREGON			
ASTORIA	8	15	13
BURNS U	37	203	267
EUGENE	82	198	210
MEDFORD	110	365	491
PENDLETON	129	472	589
PORTLAND	66	182	265
SALEM	48	113	205
SEXTON SUMMIT R	47	124	117
PACIFIC AREA			
GUAM TAGUAC R	444	3284	3312
JOHNSTON	478	3087	3305
KORER R	495	4110	3974
KWAJALEIN	525	3993	4084
MAJURO	491	3670	3922
PAGO PAGO	435	3589	3547
PONAPE R	464	3823	3770
TRUK MOEN ISLAND	493	3953	3915
WAKE	554	3591	3528
YAP R	455	3669	3928
PENNSYLVANIA			
ALLENTOWN	203	736	690
ERIE	110	304	340
HARRISBURG	240	825	906
PHILADELPHIA	315	1089	960
PITTSBURGH	73	346	578
SCRANTON	159	564	548
WILLIAMSPORT	177	628	626
RHODE ISLAND			
BLOCK ISLAND	138	460	316
PROVIDENCE	183	595	487
SOUTH CAROLINA			
CHARLESTON	384	1556	1624
CHARLESTON U	430	1774	1834
COLUMBIA	442	1514	1706
GRNVLLE-SPRTNBRG	324	997	1320
SOUTH DAKOTA			
ABERDEEN	345	865	538
HURON	328	813	671
RAPID CITY	248	586	596
SIOUX FALLS	324	946	671
TENNESSEE			
BRISTOL	212	699	936
CHATTANOOGA	363	1015	1308
KNOXVILLE	314	1021	1313
MEMPHIS	438	1505	1684
NASHVILLE	299	1052	1421
OAK RIDGE	234	718	1180
TEXAS			
ABILENE	521	1619	2001
AMARILLO	318	898	1233
AUSTIN	577	1950	2201
BROWNSVILLE	547	2545	2834
CORPUS CHRISTI	563	2421	2596
DALLAS FT WORTH	602	1841	2024
DEL RIO	521	2092	2629
EL PASO	434	1538	1781
GALVESTON	550	1984	2214
HOUSTON INTERCON	520	1833	2207
LUBBOCK	406	1231	1421
MIDLAND	434	1430	1828
PORT ARTHUR	512	1898	2146
SAN ANGELO	491	1556	2194
SAN ANTONIO	521	1955	2336
VICTORIA	550	2150	2382
WACO	644	2034	2232
WICHITA FALLS	601	1734	2142
UTAH			
MILFORD	121	482	648
SALT LAKE CITY	237	853	847
WENDOVER	264	1014	1010
VERMONT			
BURLINGTON	97	460	376
VIRGINIA			
LYNCHBURG	259	835	997
NORFOLK	347	1338	1190
RICHMOND	337	1240	1125
ROANOKE	230	804	896
WALLOPS ISLAND	274	789	919
WASHINGTON			
OLYMPIA	3	14	95
QUILLAYUTE	0	0	8
SEATTLE	14	66	166
SEATTLE-TACOMA	29	114	141
SPOKANE	93	260	334
STAMPEDE PASS R	12	14	16
WALLA WALLA U	182	563	707
YAKIMA	103	286	443
WEST INDIES			
SAN JUAN P.R.	579	3623	3288
WEST VIRGINIA			
BECKLEY	86	350	493
CHARLESTON	175	761	915
ELKINS	73	312	395
HUNTINGTON	228	831	991
PARKERSBURG U	184	697	907
WISCONSIN			
GREEN BAY	122	479	378
LA CROSSE	228	711	649
MADISON	165	591	440
MILWAUKEE	181	601	421
WYOMING			
CASPER	127	406	418
CHEYENNE	50	202	306
LANDER	84	364	356
SHERIDAN	115	354	414

STORM SUMMARY

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				HEAVY SNOWSTORMS AND BLIZZARDS				ICE STORMS				ALL OTHER			
								DAMAGE				DAMAGE				DAMAGE			DAMAGE			DAMAGE			DAMAGE			DAMAGE	
California																													
Colorado																													
Connecticut																													
Iowa																													
Minnesota																													
Montana																													
Nevada																													
New Jersey																													
North Carolina																													
North Dakota																													
Pennsylvania																													
Rhode Island																													
South Carolina																													
West Virginia																													

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

AUGUST 1976

Herbert J. Thompson, Office of Hydrology

The most significant flooding during August resulted from rainfall associated with hurricane "Belle." Widespread flash flooding occurred in New England with Vermont the most seriously affected State. Major damage was reported along the St. Johns River in Aroostook County, Maine. There was no other significant river flooding. However, a number of flash flood events were reported, the most serious of which occurred in central and southeast Washington State. The town of Corrales, NM, was also hard hit by flash flooding.

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
ST. LAWRENCE AND NORTH ATLANTIC SLOPE DRAINAGE		
Hurricane "Belle" came ashore on Long Island on the 9th, and moved northeastward through New England causing widespread urban and flash flooding. Rainfall totals for the 3-day storm ranged from about 3 to nearly 8 inches. West Dover, VT, received 4.5 inches in about 6 hours, and amounts of up to 6 inches occurred in the St. Johns River Basin in Maine. Western Massachusetts and Connecticut received 3 to 6 inches, and the eastern portion of those States received up to nearly 8 inches.	)	N.A.
Flash flooding occurred over most of Vermont with part of southern Vermont declared a disaster area although no damage figures are available. Otter Creek crested nearly 5 feet over flood stage at Center Rutland. Other Vermont streams seriously affected were the Mad, Huntington, Black, Williams, and Deerfield Rivers. Two persons were drowned along the Huntington River when a foot bridge was swept away. Serious damage occurred on the upper Hoosic River at Pownal, VT, and the waterworks at Hoosic Falls was flooded. A number of people were evacuated at Wallingford on Otter Creek. Severe crop damage occurred along lower Otter Creek which doesn't usually flood at this time of year. Heavy damage occurred in Manchester, VT, on the upper Batten Kill River.		
Damage of about $2.5 million was reported in northern Aroostook County, Maine, most of which was crop damage, although 12 businesses and 28 homes were also affected along the St. Johns River. Damage in Connecticut was estimated at $7.1 million and in Long Island at $9 million, however, much of this damage was wind and coastal flooding. Several thousand people were evacuated in Connecticut, Rhode Island, and the Cape Cod area of Massachusetts. The U.S. Geological Survey reported record crest stages on several small streams in New England, none of which are Weather Service reporting stations.		
UPPER MISSISSIPPI RIVER BASIN		
There was no flooding in this area during August. Precipitation continued much below normal over most of the area. The April through August precipitation totals were the lowest on record for west central and southwest Minnesota with deficiencies for this period reaching 10 to 12 inches in a band across south central Minnesota. In Wisconsin stream flows approached critical levels in the Chippewa and Fox-Wolf River Basins with flow durations of 97 and 98 percent, respectively. The flow of the Mississippi River at St. Paul reached a record low estimated by the U.S. Geological Survey		

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
UPPER MISSISSIPPI RIVER BASIN-Cont'd		
at 530 c.f.s. However, navigation was maintained by judicious use of the lock and dam system.		
MISSOURI RIVER BASIN		
Flash flooding was reported in Johnson County west of Buffalo, NY on the 1st. Nearly 4 inches of rain over the French Creek Basin caused the flooding with damage to private roads and fences, a trailor park and several home basements. Flash flooding was also reported in Springfield and Walnut Grove, MO, on the 15th.	0	N.A.
Most of the Missouri Basin experienced below normal rainfall. In South Dakota rainfall deficiencies ranged up to nearly 12 inches for the April-August growing season. Dodge City, KS, had the driest summer in 102 years of record with only 2.23 inches for the June-August period. Concordia and Topeka had the second driest summer on record.		
ARKANSAS RIVER BASIN		
Flash flooding occurred over much of southeastern Colorado on the 2d from rains of up to 5 inches. Numerous secondary roads were damaged. Flooding along Greenhorn Creek caused the evacuation of residents in the Rye area of Pueblo County.	0	N.A.
WEST GULF OF MEXICO DRAINAGE		
The only stream flooding occurred along the lower Nueces River early in the month and resulted from the unusually heavy rainfall during July. The Neches River in southeast Texas was out of its banks for several days at Evadale due to releases from Dam B.	0	N.A.
Several instances of urban and flash flooding were reported in various parts of New Mexico. Among the communities affected were Portales, Gila, Clovis, Santa Fe, Zia, Red River, and Corrales. A fish hatchery at Red River was damaged. Highway 61 in the Gila National Forest was closed for a week. In Corrales more than 40 homes were damaged with losses estimated at $500,000 due to flooding on the Arroyo de Los Montoyas which also washed out bridges and severed telephone and gas lines.		
PACIFIC SLOPE DRAINAGE		
Rainfall was above normal during August with several staticns reporting record totals for the month. In Idaho several flash flood events were reported on the 1st and 2d. The highway and an irrigation canal were damaged near Grandview. Murphy telephone and water lines were torn out by a flash flood on Rabbit Creek - reportedly the worst in 15 years. Near Kendrick the "School of Country Living" was damaged with losses to roads, crops, buildings, and livestock estimated at $20,000.	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

AUGUST 1976

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
PACIFIC SLOPE DRAINAGE-Cont'd		
In north-central Oregon flash flooding along Willow Creek below Lexington caused $5,000 damage to State Highway 74 on the 2d. Similar losses occurred along State Highway 19 in the Kimberly-Picture Gorge area on the 6th.	0	10
Two major flash flood events occurred in eastern and central Washington early in August. On the 2d a cold upper level low pressure system off the coast of Oregon and northern California pumped moist unstable air over eastern Washington and northern Idaho resulting in widespread thunderstorms and flash flooding. The most serious damage occurred in Asotin County where losses to mobile homes and trailors and to crops and farm buildings and equipment were estimated at $1.5 million. A wall of water 3 feet high destroyed a pick-up truck near Clarkson, killing a passenger. Stream stages were reported by residents to be the highest since 1896. This meteorological situation persisted and on the 6th flash flooding occurred in the Wenatchee area, near Entiat, and east throughout Grant, Douglas, and Lincoln Counties. The town of Almira was especially hard hit with nearly 3 inches of rain over the area. A residence was destroyed and about 15 others were damaged, several severely. Numerous washouts of spur line railroad tracks occurred in the Almira area. In the Wenatchee area the flooding carried mud and debris into streets, schools, and the basements of residences and other buildings. There were several highway and railroad washouts. There were several washouts along a 75-mile stretch of U.S. Highway 2.	1	2,500

FLOOD STAGE DATA

St. John:

Housatonic:

Caylordsville, CT

Loosic:

ache:

WEST GULF OF MEXICO DRAINAGE

ecos:

Tilden, TX

Calallen, TX

RAWINSONDE DATA

Average monthly values

AUGUST 1970

ALBANY, NY
1 09 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	31	86	15.9	14.7	23	4.8
1000	31	207	16.3	12.3	25	1.1
950	31	607	15.5	11.6	30	3.7
900	31	1,026	14.2	8.5	31	4.8
850	31	1,537	11.6	4.7	3	4.3
800	31	2,068	10.0	-0.0	31	4.2
750	31	2,578	7.4	-4.5	29	4.8
700	31	3,108	4.4	-8.5	28	5.2
650	31	3,714	1.2	-12.3	28	8.9
600	31	4,363	-2.5	-15.3	27	9.4
550	31	5,069	-6.4	-9.6	28	10.8
500	31	5,868	-11.8	-24.4	27	11.7
450	31	6,767	-19.1	-31.0	27	10.4
400	31	7,767	-28.3	-35.3	26	12.4
350	31	8,867	-39.6	-42.8	27	13.7
300	31	9,984	-38.1	-49.6	27	14.3
250	31	10,765	-47.3		27	17.8
200	31	12,212	-56.		27	19.1
175	29	13,[illegible]	-58.4		27	17.1
150	27	[illegible]	-[illegible]		27	14.1
125	26	15,158	-[illegible]		26	10.6
100	26	16,453	-[illegible]		27	5.7
80	28	17,499	-[illegible]		24	9.4
70	28	18,[illegible]	-57.2		24	.8
60	28	19,759	-55.8		01	1.8
50	28	[illegible]	-53.7		13	2.4
40	28	22,371	-51.8		08	4.4
30	27	24,227	-49.3		09	7.3
25	27	25,447	-47.4		08	7.7
20	27	26,936	-45.5		09	8.9
15	16	28,858	-43.4		09	9.6
10	6	31,610	-47.8			

ALBUQUERQUE, NM
5,352 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	31	1,519	18.1	9.4	18	1.4
1000	31	1,635	17.8	9.0	18	1.4
950	31	2,035	15.0	-0.9	14	2.2
900	31	2,548	10.8	-4.1	15	3.3
850	31	3,108	6.3	-7.3	16	4.4
800	31	3,749	0.8	-11.0	17	4.4
750	31	4,449	-3.2	-15.4	15	5.6
700	31	5,243	-8.9	-18.0	15	4.7
650	31	6,143	-13.5	-28.0	15	5.7
600	31	7,184	-19.8	-32.8	15	5.1
550	31	8,365	-26.6	-38.8	15	7.3
500	31	9,657	-34.9	-45.4	15	9.5
450	31	10,903	-44.		16	11.3
400	31	12,364	-54.4		16	13.6
350	31	13,209	-61.7		16	13.4
300	31	[illegible]	-[illegible]		17	10.4
250	31	15,256	-63.6		16	6.1
200	31	[illegible]	-[illegible]		17	4.4
175	31	16,543	-[illegible]		17	3.4
150	31	17,937	-64.1		16	2.4
125	31	18,760	-61.4		09	4.6
100	31	19,723	-59.4		09	6.5
80	31	20,874	-56.7		5	7.6
70	31	22,296	-54.6		09	9.6
60	31	24,154	-51.5		09	11.2
50	31	25,342	-49.8		09	11.4
40	31	26,808	-47.4		09	12.2
30	31	28,720	-45.0		08	14.2
25	31	29,828	-44.9		08	15.2
20	31	31,452	-40.3			

AMARILLO, TX
836 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	31	1,534	31.0	9.3	23	8.9
1000	31	2,056	18.1	5.7	22	8.9
950	31	2,606	14.1	3.1	23	8.3
900	31	3,198	9.7	.6	24	8.0
850	31	3,794	5.1	-3.7	25	7.2
800	31	4,443	.5	-9.1	26	6.2
750	31	5,136	-3.8	-17.6	24	5.1
700	31	5,882	-8.3	-24.3	24	5.2
650	31	6,692	-13.5	-30.1	25	5.3
600	31	7,577	-19.9	-34.1	27	5.9
550	31	8,556	-27.1	-39.2	29	6.5
500	31	9,646	-35.3	-47.3	29	6.8
450	31	10,891	-45.1		3	6.9
400	31	12,347	-55.5		26	10.1
350	31	13,188	-60.5		30	9.2
300	31	14,136	-65.7		26	8.7
250	31	15,232	-70.0		3	4.8
200	31	16,560	-68.3		34	4.8
175	31	17,913	-64.5		04	5.4
150	31	18,734	-62.0		04	6.0
125	31	19,694	-59.4		04	6.7
100	31	20,865	-56.6		09	7.8
80	29	22,265	-54.6		09	8.5
70	28	24,121	-51.7		09	10.9
60	28	25,309	-49.7		09	11.7
50	28	26,678	-46.7		09	13.4
40	28	28,696	-44.6		08	13.6
30	28	31,428	-40.5		09	14.4

ANCHORAGE, AK
1007 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	31	45	11.8	8.6	18	1.8
1000	26	118	11.9	8.7	17	2.0
950	31	530	11.2	6.2	16	2.4
900	31	981	8.9	4.7	14	2.6
850	31	1,452	6.9	2.5	11	3.0
800	31	1,946	2.9	.1	12	4.4
750	31	2,468	-.1	-4.2	13	5.4
700	31	3,015	-3.7	-8.2	13	5.5
650	31	3,598	-7.0	-13.0	13	5.0
600	31	4,218	-10.8	-17.1	13	4.7
550	31	4,882	-15.4	-22.7	12	4.2
500	31	5,597	-20.7	-27.8	12	4.1
450	31	6,372	-26.9	-33.5	12	4.8
400	31	7,218	-31.0	-39.8	12	5.2
350	31	8,154	-38.3	-45.1	12	6.0
300	31	9,196	-46.1		11	5.6
250	31	10,387	-52.9		11	4.3
200	31	11,831	-50.8		11	.8
175	31	12,704	-49.8		22	.6
150	31	13,713	-49.7		24	1.2
125	31	14,906	-50.0		25	1.9
100	31	16,363	-50.2		24	1.8
80	31	17,820	-50.4		25	1.6
70	31	18,692	-50.2		24	1.2
60	31	19,699	-50.2		24	.8
50	31	20,890	-50.2		18	.1
40	31	22,339	-50.0		14	.2
30	31	24,224	-48.9		09	.6
25	31	25,423	-47.5		04	.7
20	31	26,905	-45.8		12	.5
15	31	28,834	-42.8		07	1.3
10	14	31,632	-38.4			

ANNETTE, AK
101 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	29	37	12.9	10.4	12	1.9
1000	29	130	12.7	10.1	12	1.4
950	29	559	10.4	7.6	15	2.0
900	29	1,009	8.4	4.0	17	2.7
850	29	1,479	5.0	-.0	18	3.7
800	29	1,973	2.0	-3.3	18	4.2
750	29	2,492	-.4	-8.0	18	4.7
700	29	3,041	-3.0	-11.4	19	5.1
650	29	3,624	-6.0	-15.8	19	5.3
600	29	4,249	-10.2	-21.0	19	5.6
550	29	4,911	-14.8	-25.9	19	5.8
500	29	5,627	-19.6	-29.6	20	6.7
450	29	6,402	-24.7	-36.1	21	7.6
400	29	7,249	-30.9	-41.6	21	8.4
350	29	8,185	-37.9	-44.6	21	10.1
300	29	9,220	-45.3		21	11.2
250	29	10,429	-49.6		21	7.7
200	29	11,885	-50.4		23	7.9
175	29	12,759	-49.0		23	7..
150	29	13,767	-50.8		24	7.1
125	29	14,953	-51.8		23	6.0
100	29	16,396	-52.3		22	4..
80	29	17,837	-52.4		21	2.8
70	29	18,704	-52.2		19	1.6
60	29	19,699	-52.3		19	1.2
50	29	20,879	-52.3		14	.4
40	29	22,325	-51.0		11	.9
30	29	24,197	-49.4		07	1.4
25	29	25,380	-48.7		06	1.7
20	29	26,862	-48.3		07	2.4
15	29	28,774	-44.0		06	2.0
10	19	31,526	-39.4			

ATHENS, GA
96 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	31	246	19.9	17.9	04	1.3
1000						
950	31	6..	20.6	16.7	07	2.4
900	31	1,068	18.6	14.0	08	2.2
850	31	1,557	15.5	11.0	06	1.4
800	31	2,069	12.5	7.3	01	1.0
750	31	2,609	9.9	1.0	33	.8
700	31	3,180	7.1	-5.0	30	1.4
650	31	3,786	3.9	-8.8	29	1.8
600	31	4,433	.5	-15.0	29	2.6
550	31	5,126	-3.2	-19.9	28	3.7
500	31	5,874	-7.7	-24.9	29	3.3
450	31	6,686	-13.2	-29.4	28	4.1
400	31	7,572	-19.4	-35.0	28	4.7
350	31	8,553	-26.7	-41.7	23	6.0
300	31	9,644	-35.3	-48.5	29	6.6
250	31	10,889	-44.9		28	7.6
200	31	12,345	-55.8		28	8.1
175	31	13,186	-61.1		28	9.3
150	31	14,133	-66.0		28	7.0
125	31	15,232	-68.8		28	3.4
100	31	16,571	-66.9		05	2.7
80	31	17,931	-63.4		07	3.7
70	30	18,754	-61.5		08	5.4
60	30	19,715	-58.9		08	7.4
50	30	20,868	-56.1		09	9.1
40	29	22,296	-53.9		09	10.3
30	29	24,158	-50.7		09	11.4
25	29	25,349	-48.9		08	12.3
20	29	26,848	-46.8		09	14.1
15	29	28,741	-43.9		09	15.0
10	7	31,476	-40.1			

FAIRBANKS, AK
,012 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	30	8	1.5	.8	12	.9
1000	30	100	3.5	.7	17	.8
950	30	519	9.4	-.1	05	2.2
900	30	962	5.5	-.5	14	3.4
850	30	1,428	3.4	-4.1	15	4.8
800	30	1,918	.4	-7.7	15	6.3
750	30	2,435	-1..	-11.0	15	7.0
700	30	2,983	-4..	-15.0	15	7.5
650	30	3,564	-7.5	-17.8	15	8.3
600	30	4,183	-11.0	-24.4	15	8.7
550	30	4,846	-15.1	-28.7	15	8.7
500	30	5,562	-20.0	-33.4	15	9.9
450	30	6,335	-25.5	-36.5	15	10.5
400	30	7,178	-32.0	-41.8	15	11.4
350	30	8,111	-38.8	-46.5	15	12.5
300	30	9,149	-46.6		26	13..
250	30	10,339	-53.8		26	13.4
200	30	11,769	-51.7		26	9.6
175	30	12,631	-50.0		26	7.8
150	30	13,643	-49.4		26	7.6
125	30	14,824	-49..		25	5.7
100	30	16,292	-48.6		26	4.6
80	30	17,760	-48.4		26	3.4
70	30	18,660	-47.9		07	3.1
60	29	19,658	-48.2		26	2.6
50	29	20,880	-47.9		30	.2
40	28	22,341	-47.8		25	.7
30	28	24,270	-47.6			
25	28	25,522	-48.3			

BARTER ISLAND, AK
1010 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	31	15	3.4	2.8	04	1.6
1000	31	132	4.6	3.7	12	1.7
950	31	523	10..	.9	20	.6
900	31	973	8.8	-1.7	25	2.0
850	31	1,443	6.4	-2.4	27	3.8
800	31	1,939	3.8	-4.7	27	5.4
750	31	2,460	.6	-7.5	27	5.7
700	31	3,011	-2.8	-13.2	27	6.6
650	31	3,595	-6.0	-17.7	27	6.4
600	31	4,214	-9.6	-22.4	27	6.8
550	31	4,874	-13.8	-26.6	27	6.6
500	31	5,602	-18.8	-31.4	27	7.2
450	31	6,378	-24.4	-36..	27	7.7
400	31	7,225	-30.8	-43..	27	8.8
350	31	8,163	-37.7	-49.3	27	8.3
300	31	9,205	-45.8		27	10.3
250	30	10,376	-54.2		27	10.4
200	30	11,804	-52.5		27	9.1
175	30	12,673	-50.2		27	8.4
150	30	13,682	-49.4		26	8.6
125	30	14,877	-49.3		26	8.1
100	30	16,341	-49.1		26	6.3
80	30	17,807	-48.7		26	4.3
70	30	18,687	-48.2		26	3.8
60	27	19,717	-47.8		26	3.2
50	27	20,921	-47.8		26	1.6
40	26	22,306	-47.9		27	.5
30	24	24,306	-47.7		06	.7
25	23	25,506	-46.1		07	1.7
20	20	27,004	-44.0		08	1.5
15	20	28,950	-40.9		08	1.3
10	5	31,708	-36.5		09	1.1

BETHEL, AK
1008 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	30	39	9.7	8.8	22	1.1
1000	24	125	11.2	8.8	20	1.3
950	30	515	10.0	4.4	17	2.3
900	30	963	7.7	1.6	15	3.5
850	30	1,432	5.0	-1.6	15	4.1
800	30	1,925	2.3	-3.8	14	3.7
750	30	2,444	-.4	-8.3	14	3.8
700	30	2,993	-3.2	-12.6	14	3.9
650	30	3,577	-6.3	-17.2	14	3.7
600	30	4,198	-10.0	-21.0	14	3.8
550	30	4,864	-14.2	-24.7	13	4.3
500	30	5,581	-18.8	-30.8	13	3.9
450	30	6,352	-24.4	-35.8	12	3.9
400	30	7,200	-30.8	-41.9	12	3.6
350	30	8,137	-37.7	-46.3	12	3.3
300	30	9,180	-45.5		11	3.7
250	30	10,377	-52.0		07	.9
200	30	11,826	-50.3		30	2.3
175	30	12,701	-48.9		27	2.2
150	30	13,714	-49.1		27	2.7
125	30	14,908	-49.6		26	2.8
100	30	16,308	-49.9		25	2.5
80	29	17,828	-49.8		26	2.0
70	28	18,702	-49.8		27	1.8
60	28	19,710	-50.0		25	1.0
50	28	20,902	-49.8		30	.7
40	28	22,363	-49.4		01	.9
30	27	24,249	-48.8		06	.9
25	25	25,459	-47.2		07	1.5
20	24	26,943	-45.0		8	1.1
15	24	28,876	-41.6		12	.6

BISMARCK, ND
950 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	31	503	19..	10.7	10	.7
1000						
950	28	547	17.0	10.2	14	1.2
900	31	1,025	14..	8.9	19	3.5
850	31	1,514	11.0	2.9	23	3.8
800	31	2,029	8..	2.5	25	4.3
750	31	2,570	10.5	-1.0	26	5.4
700	31	3,144	6.2	-4.7	27	6.7
650	31	3,760	2.0	-8.7	26	7.7
600	31	4,388	-1.7	-14.1	27	8.4
550	31	5,074	-6.8	-19.6	26	9.2
500	31	5,813	-11.0	-24.5	26	9.8
450	31	6,614	-16.5	-29.2	26	9.4
400	31	7,489	-22.7	-35.2	26	10.7
350	31	8,457	-30.1	-42.4	26	12.7
300	31	9,532	-38.9	-49.0	27	14.2
250	31	10,758	-48.3		27	16.5
200	31	12,203	-54.8		27	18.4
175	31	13,054	-56.7		27	16.3
150	31	14,027	-58.3		27	13.1
125	31	15,169	-60.0		28	10.1
100	31	16,558	-60.7		28	5.6
80	30	17,954	-58.4		31	3.2
70	30	18,796	-57.6		35	1.9
60	30	19,774	-55.0		04	1.4
50	29	20,940	-53.7		06	2.2
40	29	22,384	-51.7		08	3.0
30	27	24,263	-49.0		08	4.0
25	25	25,466	-47.4		09	5.0
20	23	26,952	-45.2		09	6.1
15	19	28,894	-41.7		08	7.8
10	13	31,672	-38.0		09	7.9

BOISE, ID
910 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	31	874	14.1	8.1	13	2.3
1000						
950						
900	31	1,021	17.5	7.2	14	1.9
850	31	1,569	15.7	4.2	18	1.5
800	31	2,021	12.6	1.6	20	2.2
750	31	2,559	8.8	-1.6	22	3.4
700	31	3,126	4.8	-5.4	23	4.8
650	31	3,727	1.0	-9.2	23	7.0
600	31	4,366	-3.1	-13.3	23	9.6
550	31	5,049	-7.9	-17.9	23	10.3
500	31	5,782	-13.1	-24.1	22	11.2
450	31	6,577	-18.3	-29.7	22	11.6
400	31	7,446	-24.8	-35.5	22	12.9
350	31	8,406	-32.2	-42.3	22	13.7
300	31	9,472	-40.5	-50.9	22	14.8
250	31	10,692	-48.4		22	16.1
200	31	12,143	-53.0		23	15.5
175	31	13,002	-54.2		23	12.9
150	31	13,983	-56.2		23	11.5
125	31	15,138	-58.5		23	8.7
100	31	16,536	-60.0		22	4.9
80	31	17,931	-58.9		19	1.7
70	31	18,771	-57.9		13	1.7
60	31	19,746	-56.7		11	2.4
50	31	20,968	-54.8		08	3.2
40	29	22,338	-53.2		08	4.9
30	27	24,199	-50.4		09	5.7
25	26	25,395	-48.8		08	6.5
20	26	26,865	-46.9		08	6.8
15	24	28,783	-44.4		09	9.0
10	19	31,545	-39.7			

BOOTHVILLE, LA
1015 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	31	1	25.4	22.7	04	.6
1000	31	141	26.0	21.4	03	.9
950	31	593	22.9	18.4	03	1.4
900	31	1,063	19.9	15.1	07	1.0
850	31	1,554	16.9	10.6	16	.7
800	31	2,070	14.1	6.6	16	.5
750	31	2,611	11.2	1.6	17	.4
700	31	3,185	8..	-3.9	03	.2
650	31	3,794	4.9	-6.4	34	.9
600	31	4,443	1.1	-10.7	33	1.2
550	31	5,137	-2.9	-16.3	36	1.0
500	31	5,886	-7.5	-21.3	01	.6
450	31	6,699	-12.6	-26.6	05	.4
400	31	7,588	-18.7	-33.3	04	.5
350	31	8,572	-25.8	-37.9	34	.6
300	31	9,667	-34.4	-46.8	34	1.2
250	31	10,916	-44.3		26	.7
200	31	12,375	-55.3		16	1.2
175	31	13,216	-60.9		16	1.6
150	31	14,163	-65.9		12	.9
125	31	15,259	-69.6		166	1.7
100	31	16,590	-67..		08	4.5
80	31	17,936	-65.3		08	6.5
70	31	18,755	-64.9		08	8.5
60	31	19,710	-63.3		09	11.3
50	31	20,854	-57.8		09	12.9
40	31	22,272	-54.6		09	13.8
30	27	24,130	-50.1		09	15.9
25	27	25,329	-48.4		08	15.9
20	26	26,796	-47.3		08	15.9
15	22	28,707	-44.1		09	15.9
10	8	31,473	-40.9			

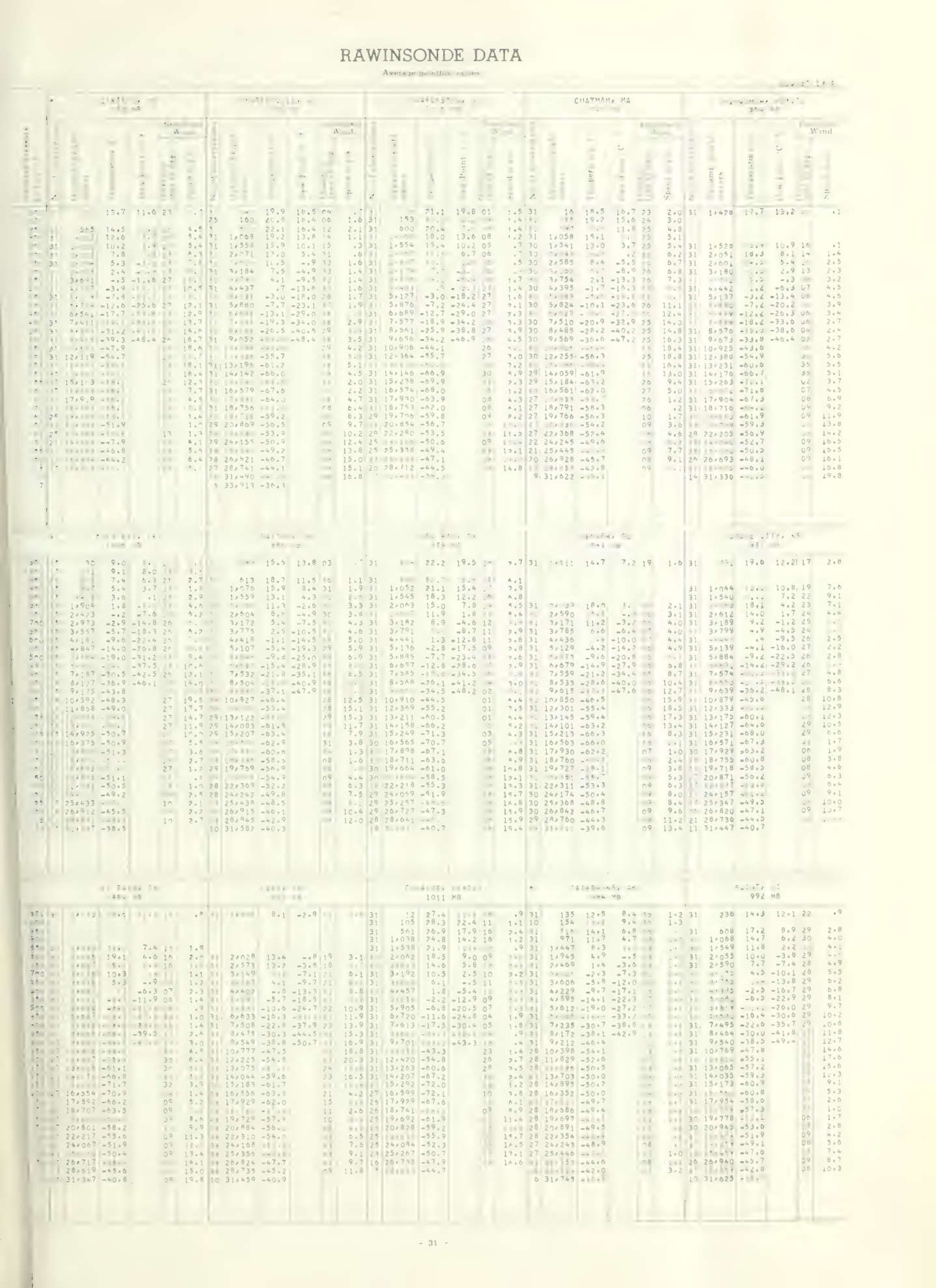
BROWNSVILLE, TX
1015 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	31	7	23.8	21.9	15	.7
1000	31	133	25.7	23.9	16	2.3
950	31	585	23.0	19.9	16	2.3
900	31	1,056	20.4	14.5	16	3.1
850	31	1,548	17.8	10.1	14	4.5
800	31	2,065	14.8	7.1	12	4.7
750	31	2,609	11.5	3.0	11	3.4
700	31	3,192	8.2	-1.3	11	3.0
650	31	3,791	4.9	-5.5	11	3.0
600	31	4,440	1.0	-10.5	11	3.9
550	31	5,134	-3.1	-14.3	11	3.0
500	31	5,883	-7.6	-20.8	09	3.1
450	31	6,695	-12.8	-25.8	09	3.2
400	31	7,583	-18.7	-32.3	09	3.2
350	31	8,568	-26.5	-39.4	09	3.2
300	31	9,661	-34.7	-47.2	08	3.0
250	31	10,908	-44.7		07	3.9
200	31	12,364	-55.8		06	6.5
175	31	13,203	-61.4		06	8.2
150	31	14,146	-67..		05	6.5
125	31	15,233	-71.7		05	4.6
100	31	16,548	-71.0		06	4.0
80	31	17,883	-67.5		08	9.0
70	28	18,693	-64.6		09	10.7
60	28	19,640	-62.5		09	13.2
50	28	20,772	-59.7		09	14.4
40	26	22,177	-56.2		09	14.9
30	24	24,027	-51.6		09	14.6
25	24	25,218	-48.9		09	15.0
20	22	26,693	-46.4		09	15.4
15	18	28,512	-44.0		09	16.4
10	7	31,362	-40.7			

BUFFALO, NY
994 MB

Standard isobaric surface	No. of observations	Height above sea level (meters)	Temperature (°C)	Dew point (°C)	Resultant Wind: Direction (tens of degrees)	Resultant Wind: Speed (m.p.h.)
SFC	31	218	15.7	13.2	22	.9
1000						
950	31	604	16.5	10.8	28	3.0
900	31	1,063	14.2	7.9	29	4.2
850	31	1,543	11.4	4.4	29	4.4
800	31	2,049	9.3	-.2	29	4.9
750	31	2,582	6.9	-4.3	29	5.8
700	31

RAWINSONDE DATA



RAWINSONDE DATA

Average monthly values

AUGUST 1976

GLASGOW, MT — 936 MB

Standard Isobaric Surface (mb)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)
SFC	31	665	15.2	9.0	11	1.9	29	1,472	17.4	4.2	11	4.2
1000												
950	31	1,011	18.6	7.6	24	3.0						
900	31	1,381	19.2	8.9	22	3.7	27	1,519	14.6	4.9	8	4.6
850	31	1,766	13.9	1.5	23	3.0	29	2,037	10.0	-.9	26	6.5
800	31	2,166	8.9	-.5	24	4.1	29	2,588	15.4	-.3	26	4.5
750	31	2,615	5.7	-3.8	25	4.6	29	3,169	11.2	-1.0	28	5.7
700	31	3,117	1.6	-6.5	25	7.0	29	3,783	6.4	-4.4	24	6.3
650	31	3,680	-2.7	-10.6	25	8.7	29	4,433	.1	-7.4	24	7.3
600	31	4,302	-7.1	-16.7	25	9.5	29	5,125	-4.6	-11.4	23	8.1
550	31	4,985	-11.7	-23.4	25	10.7	28	5,884	-9.1	-20.3	23	9.2
500	31	5,734	-16.8	-29.2	25	10.7	28	6,715	-15.1	-25.4	24	10.3
450	31	6,556	-23.1	-34.9	25	11.6	29	7,552	-21.3	-34.1	24	11.5
400	31	7,446	-30.7	-43.3	25	11.7	29	8,527	-28.4	-41.1	24	12.1
350	31	8,430	-39.4	-46.3	25	12.2	29	9,609	-37.1	-48.7	24	14.8
300	31	9,513	-46.6		24	12.9	29	10,845	-46.2		24	18.1
250	30	10,758	-54.8		25	9.4	29	12,299	-54.9		24	18.8
200	30	12,021	-60.1		24	14.6	29	13,944	-58.6		5	16.4
150	31	13,569	-57.3		24	19.7	29	14,106	-60.3		4	15.3
100	31	15,146	-58.9		24	10.4	29	15,223	-66.4		24	9.8
70	31	16,315	-59.8		27	4.7	29	16,575	-65.6		8	5.8
50	31	17,945	-57.9		28	7.1	28	17,943	-62.4		14	4.7
40	30	18,790	-56.5		31	.8	28	18,773	-60.2		20	2.4
30	30	19,771	-55.1		07	1.1	28	19,739	-58.0		09	3.7
25	30	20,919	-53.8		08	2.1	28	20,895	-55.8		08	4.8
20	30	22,307	-52.2		07	3.4	28	22,323	-53.8		09	6.4
15	31	24,252	-49.6		08	5.1	28	24,186	-50.6		09	7.7
10	30	25,452	-47.4		08	4.0	28	25,376	-48.5		09	7.8
5	30	26,937	-44.9		09	4.9	28	26,850	-47.0		08	9.9
2	28	28,876	-42.5		09	5.4	18	28,761	-44.1		08	11.4
1		31,622	-38.7		09	9.1	7	31,504	-39.4			

GRAND JUNCTION, CO — 854 MB

Standard Isobaric Surface (mb)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)
SFC	31	1,178	14.1	7.6	23	2.2	31	210	13.4	11.5	26	1.4
1000												
950							31	597	17.4	9.0	28	3.4
900							31	1,058	15.1	4.7	29	2.9
850	31	1,497	15.7	4.3	24	4.5	31	1,540	12.6	1.5	29	2.9
800	31	1,947	12.5	1.6	24	4.7	31	2,047	10.1	-2.5	30	3.4
750	31	2,417	9.1	-3.2	24	4.5	31	2,581	7.5	-6.0	34	4.1
700	31	2,917	5.1	-7.1	24	5.3	31	3,147	4.5	-11.3	30	5.3
650	31	3,459	1.1	-12.4	24	6.3	31	3,747	1.2	-13.5	30	6.8
600	31	4,058	-3.1	-18.4	24	8.2	31	4,386	-2.8	-17.6	30	7.6
550	31	4,741	-7.5	-16.0	24	8.7	30	5,070	-7.3	-22.1	30	8.8
500	31	5,507	-12.3	-21.2	24	9.1	30	5,804	-11.7	-27.1	30	9.1
450	31	6,374	-17.8	-27.6	23	10.1	30	6,605	-17.3	-33.3	30	10.1
400	31	7,344	-24.2	-34.0	24	11.4	30	7,477	-23.9	-38.5	30	10.8
350	31	8,406	-31.6	-41.4	23	11.7	30	8,442	-30.8	-43.4	30	11.1
300	31	9,575	-40.2	-48.	23	12.5	30	9,515	-38.2	-48.1	30	12.2
250	29	10,895	-49.		23	13.9	29	10,740	-48.1		30	13.4
200	29	12,462	-53.7		24	14.4	29	12,187	-55.0		30	14.5
150	29	14,284	-54.3		24	13.8	29	13,936	-56.9		30	14.0
100	29	15,982	-60.		25	10.1	29	14,009	-58.5		30	13.0
70	29	15,135	-58.7		24	8.3	29	15,150	-60.3		30	11.2
50	28	16,533	-59.3		25	5.1	29	16,540	-60.4		02	7.2
40	28	17,934	-58.3		25	3.2	29	17,937	-58.2		02	3.3
30	28	18,778	-57.		24	1.1	29	18,781	-56.9		33	2.2
25	28	19,756	-55.7		08	1.4	29	19,761	-55.4		01	1.6
20	28	20,974	-53.8		08	2.8	29	20,930	-53.4		07	2.1
15	28	22,343	-52.6		09	3.1	28	22,379	-51.4		08	4.3
10	27	24,234	-49.6		07	4.7	28	24,251	-49.3		09	5.1
5	27	26,233	-47.4		08	6.3	27	25,453	-47.4		08	6.3
2	27	26,909	-45.7		08	8.0	26	26,937	-44.1		09	7.1
1	24	28,834	-43.1		09	8.8	24	28,877	-42.0		09	8.8
	13	31,585	-39.7		08	7.1	12	31,647	-38.0			

GREAT FALLS, MT — 849 MB

Standard Isobaric Surface (mb)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)
SFC	31	1,178	14.1	7.6	23	2.2	31	210	13.4	11.5	26	1.4
1000												
950							31	597	17.4	9.0	28	3.4
900							31	1,058	15.1	4.7	29	2.9
850	31	1,497	15.7	4.3	24	4.5	31	1,540	12.6	1.5	29	2.9
800	31	1,947	12.5	1.6	24	4.7	31	2,047	10.1	-2.5	30	3.4
750	31	2,417	9.1	-3.2	24	4.5	31	2,581	7.5	-6.0	34	4.1
700	31	2,917	5.1	-7.1	24	5.3	31	3,147	4.5	-11.3	30	5.3
650	31	3,459	1.1	-12.4	24	6.3	31	3,747	1.2	-13.5	30	6.8
600	31	4,058	-3.1	-18.4	24	8.2	31	4,386	-2.8	-17.6	30	7.6
550	31	4,741	-7.5	-16.0	24	8.7	30	5,070	-7.3	-22.1	30	8.8
500	31	5,507	-12.3	-21.2	24	9.1	30	5,804	-11.7	-27.1	30	9.1
450	31	6,374	-17.8	-27.6	23	10.1	30	6,605	-17.3	-33.3	30	10.1
400	31	7,344	-24.2	-34.0	24	11.4	30	7,477	-23.9	-38.5	30	10.8
350	31	8,406	-31.6	-41.4	23	11.7	30	8,442	-30.8	-43.4	30	11.1
300	31	9,575	-40.2	-48.	23	12.5	30	9,515	-38.2	-48.1	30	12.2
250	29	10,895	-49.		23	13.9	29	10,740	-48.1		30	13.4
200	29	12,462	-53.7		24	14.4	29	12,187	-55.0		30	14.5
150	29	14,284	-54.3		24	13.8	29	13,936	-56.9		30	14.0
100	29	15,982	-60.		25	10.1	29	14,009	-58.5		30	13.0
70	29	15,135	-58.7		24	8.3	29	15,150	-60.3		30	11.2
50	28	16,533	-59.3		25	5.1	29	16,540	-60.4		02	7.2
40	28	17,934	-58.3		25	3.2	29	17,937	-58.2		02	3.3
30	28	18,778	-57.		24	1.1	29	18,781	-56.9		33	2.2
25	28	19,756	-55.7		08	1.4	29	19,761	-55.4		01	1.6
20	28	20,974	-53.8		08	2.8	29	20,930	-53.4		07	2.1
15	28	22,343	-52.6		09	3.1	28	22,379	-51.4		08	4.3
10	27	24,234	-49.6		07	4.7	28	24,251	-49.3		09	5.1
5	27	26,233	-47.4		08	6.3	27	25,453	-47.4		08	6.3
2	27	26,909	-45.7		08	8.0	26	26,937	-44.1		09	7.1
1	24	28,834	-43.1		09	8.8	24	28,877	-42.0		09	8.8
	13	31,585	-39.7		08	7.1	12	31,647	-38.0			

GREEN BAY, WI — 944 MB

Standard Isobaric Surface (mb)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)
SFC	31	297	17.4	9.0	28	3.4	31	275	17.7	16.8	04	.8
1000												
950	31	614	19.0	14.0	36	1.2						
900	31	1,058	15.1	4.7	29	2.9	31	1,077	-.4	1.0	03	1.4
850	31	1,564	11.2	1.5	29	2.9	31	1,564	11.2	9.6	34	.7
800	31	2,107	7.7	-2.5	30	3.4	31	2,107	7.7	6.3	28	1.2
750	31	2,681	3.7	-7.0	30	4.1	31	2,681	3.7	2.0	28	2.2
700	31	3,288	-.1	-12.5	30	6.8	31	3,288	-.1	-3.4	29	3.0
650	31	3,933	-4.6	-18.6	30	7.6	31	3,933	-4.6	-10.1	29	3.2
600	31	4,634	-9.6	-24.8	30	8.8	31	4,634	-9.6	-15.9	28	3.2
550	31	5,412	-15.0	-28.0	30	8.8	31	5,420	-14.9	-19.0	27	3.0
500	31	5,280	-20.6	-32.3	30	9.1	31	6,281	-20.6	-25.6	27	4.9
450	31	7,245	-27.3	-37.2	30	10.1	31	7,245	-27.3	-29.4	27	6.1
400	31	8,305	-34.7	-42.0	30	10.8	31	8,305	-34.7	-34.7	27	7.1
350	31	9,475	-43.1	-47.2	30	11.1	31	9,475	-43.1	-47.2	27	8.4
300	30	10,778	-52.6		30	12.3	30	10,778	-52.6		27	10.8
250	30	12,242	-53.7		24	14.4	29	12,187	-55.0		28	11.7
200	30	13,921	-56.1		24	14.8	29	13,936	-56.9		28	12.3
150	30	13,982	-60.4		25	14.1	29	14,009	-58.5		28	9.6
100	30	15,135	-58.7		24	8.3	29	15,150	-60.3		29	5.8
70	30	16,533	-59.3		25	5.1	29	16,540	-60.4		29	1.9
50	28	17,934	-58.3		25	3.2	29	17,937	-58.2		07	1.2
40	28	18,778	-57.		24	1.1	29	18,781	-56.9		07	3.9
30	28	19,756	-55.7		08	1.4	29	19,761	-55.4		09	5.6
25	28	20,974	-53.8		08	2.8	29	20,930	-53.4		09	7.3
20	28	22,343	-52.6		09	3.1	28	22,379	-51.4		09	8.5
15	28	24,234	-49.6		07	4.7	28	24,251	-49.3		09	9.8
10	27	26,233	-47.4		08	6.3	27	25,453	-47.4		08	10.4
5	27	26,909	-45.7		08	8.0	26	26,937	-44.1		09	12.4
2	24	28,834	-43.1		09	8.8	24	28,877	-42.0		09	13.7
1	13	31,585	-39.7		08	7.1	12	31,647	-38.0			

GREENSBORO, NC — 988 MB

Standard Isobaric Surface (mb)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)
SFC	31	275	17.7	16.8	04	.8						
1000												
950	31	614	19.0	14.0	36	1.2						
900	31	1,077	-.4	1.0	03	1.4						
850	31	1,564	-.2	9.6	34	.7						
800	31	2,107	7.7	6.3	28	1.2						
750	31	2,681	3.7	2.0	28	2.2						
700	31	3,288	-.1	-3.4	29	3.0						
650	31	3,933	-4.6	-10.1	29	3.2						
600	31	4,634	-9.6	-15.9	28	3.2						
550	31	5,420	-14.9	-19.0	27	3.0						
500	31	6,281	-20.6	-25.6	27	4.9						
450	31	7,245	-27.3	-29.4	27	6.1						
400	31	8,305	-34.7	-34.7	27	7.1						
350	31	9,475	-43.1	-47.2	27	8.4						
300	30	10,778	-52.6		27	10.8						
250	30	12,242	-53.7		24	14.4						
200	30	13,921	-56.1		24	14.8						
150	30	13,982	-60.4		25	14.1						
100	30	15,135	-58.7		24	8.3						
70	30	16,533	-59.3		25	5.1						
50	28	17,934	-58.3		25	3.2						
40	28	18,778	-57.		24	1.1						
30	28	19,756	-55.7		08	1.4						
25	28	20,974	-53.8		08	2.8						
20	28	22,343	-52.6		09	3.1						
15	28	24,234	-49.6		07	4.7						
10	27	25,453	-47.4		08	6.3						
5	27	26,937	-44.1		09	7.1						
2	24	28,877	-42.0		09	8.8						
1	12	31,647	-38.0									

GUAM, MARIANA IS. — 996 MB

Standard Isobaric Surface (mb)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)
SFC	31	111	24.8	23.6	11	1.5	31	147	22.1	19.1	26	.7
1000												
950	31	542	23.4	20.9	11	3.3	31	593	19.0	16.9	28	2.1
900	31	1,014	20.9	17.0	13	3.3	31	1,056	16.0	13.9	08	3.6
850	31	1,508	18.1	13.7	13	3.3	31	1,540	12.8	10.9	08	3.1
800	31	2,026	15.4	10.4	13	2.9	31	2,049	11.3	1.5	09	3.5
750	31	2,572	12.6	6.9	12	2.5	31	2,588	11.0	-6.2	10	4.3
700	31	3,148	9.5	2.8	12	4.0	31	3,161	8.4	-10.3	10	3.8
650	31	3,758	6.2	-1.4	11	4.9	31	3,769	5.2	-13.8	10	2.6
600	31	4,413	2.3	-5.4	12	3.6	31	4,418	1.3	-17.1	31	1.6
550	31	5,122	-1.7	-8.5	12	4.1	31	5,113	-2.7	-21.4	06	.5
500	31	5,865	-5.7	-14.2	12	3.4	31	5,863	-7.0	-26.1	33	1.1
450	31	6,684	-10.7	-19.4	11	4.4	31	6,674	-12.2	-30.2	09	2.6
400	31	7,580	-16.5	-25.3	10	3.8	29	7,566	-18.6	-36.3	9	3.7
350	31	8,575	-23.3	-34.1	10	3.4	29	8,550	-26.1	-41.7	18	6.1
300	30	9,682	-31.8	-42.4	10	2.9	29	9,643	-34.7	-49.1	28	8.8
250	30	10,943	-42.2		12	2.7	29	10,890	-44.6		18	13.4
200	30	12,441	-54.9		15	1.7	29	12,346	-55.8		28	16.9
150	30	13,251	-62.2		12	1.5	29	13,185	-61.6		28	16.4
100	30	14,185	-70.0		08	2.2	29	14,127	-67.3		27	14.0
125	29	15,249	-76.8		07	4.3	29	15,212	-72.3		26	8.5
100	29	16,527	-77.0		08	10.5	29	16,520	-72.6		12	1.4
90	29	17,826	-72.7		09	13.2	29	17,840	-69.3		09	10.2
70	29	18,819	-68.9		09	14.6	28	18,843	-66.7		10	12.1
60	29	19,549	-65.8		09	15.3	28	19,580	-64.3		09	14.1
50	29	20,667	-62.2		09	15.0	27	20,705	-61.2		09	17.4
40	29	22,058	-58.6		09	13.1	27	22,103	-57.7		09	20.0
30	29	23,888	-54.3		09	21.4	26	23,939	-53.2		09	21.8
25	29	25,061	-52.6		09	24.5	26	25,121	-50.8		09	22.8
20	29	26,512	-50.0		09	28.6	25	26,584	-48.2		09	24.9
15	29	28,309	-47.3		09	32.5	23	28,491	-45.5		09	24.8
10	29	31,106	-43.6				18	31,208	-42.2		09	27.0

HILO, HI — 1016 MB

Standard Isobaric Surface (mb)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)
SFC	31	1	21.8	19.7	05	1.5	31	10	20.6	23.6	08	2.7
1000							31	118	20.6	23.3	08	3.6
950	31	564	22.8	23.0	09	5.4	31	564	22.8	23.0	09	5.4
900	31	1,040	20.4	14.8	09	6.5	31	1,040	20.4	14.8	09	6.5
850	31	1,532	17.5	10.6	10	6.9	31	1,532	17.5	10.6	10	6.9
800	31	2,046	14.0	6.2	10	6.8	31	2,046	14.0	6.2	10	6.8
750	31	2,592	12.0	.6	10	6.4	31	2,592	12.0	.6	10	6.4
700	31	3,167	8.0	-3.0	11	6.3	31	3,167	8.0	-3.0	11	6.3
650	31	3,770	5.2	-8.9	11	5.6	31	3,770	5.2	-8.9	11	5.6
600	31	4,422	2.3	-12.4	10	5.5	31	4,422	2.3	-12.4	10	5.5
550	31	5,120	-.1	-17.2	10	5.1	31	5,120	-.1	-17.2	10	5.1
500	31	5,868	-3.8	-22.3	09	4.1	31	5,868	-3.8	-22.3	09	4.1
450	31	6,680	-12.7	-20.2	09	3.1	31	6,680	-12.7	-20.2	09	3.1
400	31	7,567	-18.0	-31.0	10	2.6	31	7,567	-18.0	-31.0	10	2.6
350	31	8,554	-25.4	-38.0	06	1.7	31	8,554	-25.4	-38.0	06	1.7
300	30	9,651	-32.7	-46.4	03	1.4	30	9,651	-32.7	-46.4	03	1.4
250	30	10,904	-44.0		31	2.3	30	10,904	-44.0		31	2.3
200	30	12,362	-55.4		30	4.3	30	12,362	-55.4		30	4.3
150	30	13,202	-61.7		31	4.4	30	13,202	-61.7		31	4.4
100	29	14,142	-67.8		31	3.8	29	14,142	-67.8		31	3.8
125	29	15,220	-71.4		34	3.1	29	15,220	-71.4		34	3.1
100	29	16,543	-71.0		00	6.1	29	16,543	-71.0		00	6.1
90	29	17,867	-68.8		09	9.5	28	17,867	-68.8		09	9.5
70	29	18,874	-65.4		09	10.8	28	18,874	-65.4		09	10.8
60	29	19,614	-63.4		08	12.5	27	19,614	-63.4		08	12.5
50	29	20,740	-61.2		08	16.1	27	20,740	-61.2		08	16.1
40	29	22,138	-57.4		09	19.1	27	22,138	-57.4		09	19.1
30	29	23,974	-53.0		09	21.8	23	23,974	-53.0		09	21.8
25	29	25,157	-50.6		09	22.8	23	25,157	-50.6		09	22.8
20	29	26,628	-48.7		09	25.3	22	26,628	-48.7		09	25.3
15	29	28,550	-44.8		09	28.5	18	28,550	-44.8		09	28.5
10	29	31,280	-41.6		09	29.4	12	31,280	-41.6		09	29.4

HUNTINGTON, WV — 941 MB

Standard Isobaric Surface (mb)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)		Height (m)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (°)	Resultant Wind Speed (m/s)
SFC	31	246	17.4	15.4	07	.2	31	359	12.7	10.7	17	.8
1000												
950	31	605	19.3	16.3	23	.4	31	572	14.0	10.4	22	3.7
900	31	1,069	16.8	9.6	29	1.1	31	1,034	15.9	7.1	24	5.5
850	31	1,555	14.0	6.2	28	3.0	31	1,517	13.2	3.4	27	4.8
800	31	2,065	11.6	2.5	28	3.8	31	2,025	10.3	.1	27	5.3
750	31	2,603	9.1	-2.1	28	3.1	31	2,560	7.3	-3.4	27	6.0
700	31	3,171	5.8	-6.0	28	3.2	31	3,124	3.0	-7.7	27	6.8
650	31	3,773	2.9	-10.4	29	3.4	31	3,727	-.4	-12.0	28	7.9
600	31	4,419	-.5	-14.1	29	3.4	31	4,361	-3.5	-16.6	28	9.7
550	31	5,109	-4.7	-18.9	29	4.5	31	5,043	-7.5	-21.4	28	10.6
500	31	5,853	-9.	-24.1	28	4.3	31	5,779	-12.4	-26.5	29	11.8
450	31	6,660	-14.5	-28.9	28	4.3	31	6,575	-17.8	-30.4	29	12.7
400	31	7,562	-20.8	-35.7	29	3.3	31	7,446	-24.1	-36.7	29	14.2
350	31	8,518	-27.9	-41.8	28	2.4	31	8,409	-31.4	-43.6	29	16.9
300	30	9,604	-36.1	-48.4	29	2.9	30	9,481	-39.7	-46.8	29	18.3
250	30	10,845	-45.6		28	2.7	30	10,704	-48.6		29	19.7
200	30	12,300	-55.2		28	1.8	30	12,144	-55.7		29	19.0
150	31	13,145	-59.1		29	1.4	29	12,996	-56.4		29	18.3
100	31	14,114	-62.2		28	2.9	29	13,972	-57.3		29	15.0
125	30	15,227	-64.3		27	4.3	29	15,119	-58.8		30	11.2
100	30	16,590	-63.6		30	3.0	29	16,520	-58.8		30	7.5
90	30	17,968	-61.2		04	1.0	29	17,927	-56.9		30	4.1
70	30	18,951	-59.3		08	2.1	28	18,775	-55.9		34	3.0

RAWINSONDE DATA

Average monthly values

NORFOLK, VA. (NAS) 1016 MB

SFC	31	30	25.9	24.0	26	1.4
1000	31	90	25.9	23.1	25	1.8
950	31	542	22.8	20.3	26	3.5
900	31	1,013	20.4	17.1	26	3.5
850	31	1,514	17.1	13.5	27	3.4
800	31	2,021	14.7	10.9	27	1.9
750	31	2,556	11.1	7.4	27	.9
700	31	3,116	9.3	2.8	24	.9
650	31	3,706	5.9	-1.3	23	.9
600	31	4,326	2.0	-4.7	23	1.3
550	31	5,104	-1.7	-7.5	10	3.5
500	31	5,897	-8.0	-13.1	07	4.0
450	31	6,818	-10.4	-15.9	07	5.1
400	31	7,574	-16.0	-25.3	08	4.7
350	31	8,570	-22.8	-31.8	08	5.3
300	31	9,679	-31.2	-41.8	06	7.1
250	31	10,943	-41.5		07	7.9
200	31	12,477	-54.1		07	9.9
150	31	14,341	-61.0		07	11.0
100	31	16,444	-68.3		07	10.6
050	31	18,277	-74.9		07	7.4
000	31	20,554	-75.9		08	4.4
950	31	23,566	-70.4		09	3.2
900	30	26,669	-66.5		09	4.7
850	31	29,778	-64.1		25	4.8
800	30	33,193	-61.4		08	5.4
750	28	36,727	-58.6		09	10.9
700	28	39,951	-54.3		09	23.4
650	27	43,258	-51.5		09	29.1
600	27	46,591	-48.0		09	31.9
550	24	49,502	-44.6		10	34.7
500	19	52,478	-40.0			

MITCHEL, AL 1016 MB

SFC	31	6	11.7	8.0	6	.7
1000	31	97	11.8	6.0	16	.9
950	31	548	10.5	1.1	17	2.0
900	31	1,003	8.0	-2.6	19	3.0
850	31	1,497	5.3	-6.8	19	4.1
800	31	2,021	1.9	-11.0	19	4.5
750	31	2,565	-1.1	-17.9	19	4.6
700	31	3,135	-5.0	-22.8	19	5.1
650	31	3,735	-9.3	-27.9	19	4.7
600	31	4,368	-13.9	-34.1	19	5.0
550	31	4,875	-13.9	-24.1	18	4.8
500	31	5,592	-18.9	-28.5	18	4.9
450	31	6,368	-24.5	-31.9	18	5.4
400	31	7,215	-30.6	-39.6	18	4.7
350	31	8,153	-37.6	-45.4	16	4.2
300	31	9,196	-45.5		19	4.3
250	31	10,391	-53.2		04	5.0
200	31	11,821	-53.3		02	4.8
150	31	12,686	-50.7		03	4.7
100	31	13,694	-49.8		02	4.4
050	31	14,886	-48.9		03	3.8
000	31	16,345	-49.5		03	2.9
950	31	17,807	-49.7		23	2.4
900	31	18,685	-48.9		24	2.2
850	31	19,648	-48.9		23	1.3
800	31	20,805	-48.9		17	.2
750	24	22,369	-48.6		08	.4
700	24	24,263	-48.2		04	1.2
650	21	25,451	-47.1		08	1.2
600	18	26,938	-45.2		08	1.5
550	15	28,858	-42.2		07	1.7
500	8	31,573	-38.2			

KWAJALEIN, MARSHALL IS.

N						

SAN DIEGO, CA 1016 MB

N	1	5	21.5	20.2	8	1.0
	2	146	24.0	20.1	6	.7
	3	595	20.7	18.0	15	.8
	31	1,065	20.0	13.4	14	1.5
	31	1,556	17.2	7.4	11	1.5
	31	2,071	13.9	5.7	11	1.0
	31	2,612	10.8	.8	9	.9
	31	3,188	7.7	-4.4	12	1.1
	31	3,793	4.2	-9.0	03	.9
	31	4,440	.8	-13.6	06	.8
	31	5,134	-3.1	-18.5	05	1.0
	31	5,882	-8.0	-24.5	05	1.0
	31	6,693	-13.1	-29.0	05	.7
	31	7,579	-19.4	-33.6	12	.7
	31	8,561	-26.6	-39.4	10	.6
	31	9,652	-35.1	-47.	11	.4
	31	10,896	-45.2		08	.3
	31	12,352	-55.5		12	1.1
	31	13,993	-60.8		08	1.5
	31	14,140	-65.7		04	2.3
	31	15,236	-69.7		03	2.4
	31	16,565	-69.2		07	3.2
	31	17,909	-65.7		08	6.4
	31	18,727	-62.5		08	8.2
	31	19,684	-60.5		09	10.2
	31	20,827	-57.8		09	12.1
	31	22,244	-54.0		09	13.2
	31	24,099	-51.0		09	14.3
	31	25,289	-49.6		09	14.4
	31	26,755	-48.1		09	15.1
	30	28,060	-45.4		09	16.6
	29	31,399	-40.2		09	18.7

DENVER, CO 834 MB

N	1	1	20.7	5.0	4.7	2	2.0
	2						
	3						
	31						
	31						
	31						
	31	1	21.3	.6	.6	25	1.8
	31	2	20.3	-.2	-2.1	25	2.1
	31	3	19.3	-1.0	-4.3	24	4.9
	31	4	18.4	-1.9	-7.9	24	7.5
	31	5	17.4	-2.8	-11.9	24	
	31	6	16.4	-3.6	-16.2	24	11.2
	31	7	15.4	-5.0	-22.5	24	11.3
	31	8	14.4	-6.3	-27.5	24	11.9
	31	9	13.4	-8.0	-34.8	24	
	31	10	12.4	-9.2	-42.2	24	13.7
	31	11	11.4	-10.7	-49.4	24	16.5
	31	12	10.4	-12.3		24	18.9
	31	13	9.4	-13.8		24	19.0
	31	14	8.4	-15.3		24	17.3
	31	15	7.4	-16.8		24	
	31	16	6.4	-18.4		24	10.3
	31	17	5.4	-19.9		23	3.8
	31	18	4.4	-21.5		17	1.3
	31	19	3.4	-23.0		09	1.6
	31	20	2.4	-24.6		08	2.5
	31	21	1.4	-26.1		08	4.4
	31	22	0.4	-27.7		08	5.7
	31	23	-0.6	-29.2		08	6.6
	31	24	-1.6	-30.8		09	7.3
	31	25	-2.6	-32.3		09	8.1
	31	26	-3.6	-33.9		09	9.1
	31	27	-4.6	-35.4		09	12.7

SAULT STE MARIE, MI 1014 MB

SFC	31	36	24.2	20.7	25	4.2
1000	31	156	23.2	19.7	06	5.6
950	31	663	19.7	17.5	07	8.0
900	31	1,067	16.3	13.8	07	8.5
850	31	1,552	13.3	10.6	08	8.4
800	31	2,046	12.0	-.3	08	8.4
750	31	2,601	10.8	-6.9	09	7.6
700	31	3,173	8.1	-12.4	09	5.8
650	31	3,781	5.1	-14.9	08	3.8
600	31	4,441	1.6	-18.7	09	2.0
550	31	5,150	-2.6	-21.4	08	2.5
500	31	5,875	-6.9	-25.4	02	1.7
450	31	6,669	-12.5	-29.5	34	1.9
400	31	7,577	-19.4	-34.9	31	2.9
350	31	8,557	-27.0	-41.0	30	5.1
300	31	9,646	-35.7	-49.0	29	7.2
250	31	10,887	-45.8		22	9.0
200	31	12,340	-56.1		28	13.1
150	31	13,780	-61.2		28	13.5
100	31	15,411	-66.9		27	11.6
050	31	15,154	-70.7		24	8.8
000	31	16,534	-71.8		11	3.0
950	30	17,885	-68.2		04	8.4
900	29	18,671	-65.9		09	11.9
850	27	19,612	-63.6		12	14.1
800	29	20,740	-60.6		09	16.9
750	28	22,140	-57.1		09	19.8
700	27	23,981	-52.6		09	21.3
650	27	25,163	-50.8		09	22.1
600	27	26,615	-48.2		09	22.9
550	25	28,533	-45.6		09	21.6
500	20	31,244	-42.5		09	25.3

LITTLE ROCK, AR 994 MB

SFC	31	79	20.7	16.6	25	.5
1000	31	184	20.6	14.7	25	1.9
950	31	609	22.4	13.2	14	1.5
900	31	1,078	19.6	10.7	18	.8
850	31	1,568	16.8	7.2	19	1.0
800	31	2,083	14.4	1.8	32	1.9
750	31	2,626	11.4	-1.7	33	2.1
700	31	3,198	7.4	-3.8	34	2.6
650	31	3,805	3.8	-8.4	36	2.2
600	31	4,450	-.2	-12.9	01	1.7
550	31	5,141	-4.4	-16.8	33	1.4
500	31	5,887	-8.7	-23.1	29	1.5
450	31	6,696	-13.9	-28.6	31	3.0
400	31	7,577	-20.2	-34.6	35	3.3
350	31	8,558	-27.2	-41.2	29	4.4
300	31	9,647	-35.5	-48.7	29	6.1
250	31	10,890	-46.2		18	6.7
200	31	12,356	-55.7		28	6.6
150	31	13,787	-60.5		29	6.6
100	31	14,137	-64.7		30	7.2
050	31	15,245	-67.9		32	4.8
000	30	16,585	-67.5		01	1.8
950	30	17,940	-64.1		06	3.5
900	30	18,764	-61.1		08	5.5
850	30	19,727	-59.0		08	6.9
800	30	20,879	-56.1		09	8.0
750	30	22,305	-53.9		09	8.7
700	29	24,159	-50.8		09	10.4
650	27	25,349	-49.1		09	11.3
600	26	26,818	-46.6		09	12.4
550	22	28,736	-44.7		09	13.4
500	15	31,464	-40.6		09	15.1

LONGVIEW, TX 1004 MB

SFC	31	134	23.9	19.2	12	.2
1000	31	156	22.2	18.3	15	.5
950	31	605	23.2	16.0	18	1.4
900	31	1,076	20.4	13.6	19	1.9
850	31	1,568	17.1	9.4	21	.5
800	31	2,083	14.3	5.1	02	1.0
750	31	2,626	11.1	.8	03	2.2
700	31	3,198	7.4	-3.9	04	2.8
650	31	3,805	3.8	-7.2	04	2.6
600	31	4,451	.3	-13.4	04	1.7
550	31	5,144	-3.4	-18.6	03	1.0
500	31	5,891	-8.2	-22.7	35	1.1
450	31	6,702	-13.3	-28.5	35	1.4
400	31	7,587	-19.6	-34.9	35	2.5
350	31	8,549	-26.8	-41.0	34	3.2
300	31	9,658	-35.4	-48.5	33	3.1
250	31	10,902	-45.3		33	3.9
200	31	12,356	-55.5		33	4.4
150	31	13,798	-60.4		32	4.9
100	31	14,147	-65.4		34	5.6
050	31	15,245	-69.2		35	3.2
000	31	16,578	-68.0		04	2.8
950	31	17,929	-64.5		08	5.7
900	31	18,750	-62.1		08	7.2
850	31	19,709	-59.6		08	8.8
800	31	20,856	-57.1		09	10.5
750	30	22,279	-54.2		09	11.0
700	30	24,140	-51.2		09	12.3
650	28	25,331	-49.5		09	13.7
600	28	26,799	-47.3		09	14.9
550	25	28,714	-44.2		09	16.3
500	10	31,460	-41.2			

MCGRATH, AK 998 MB

SFC	31	103	9.4	7.5	29	.8
1000	31	152	12.7	8.9	32	1.1
950	31	517	12.9	6.2	33	.3
900	31	969	10.3	3.6	16	.3
850	31	1,442	7.0	1.1	14	2.3
800	31	1,938	3.5	-.7	14	2.9
750	31	2,459	.1	-5.2	13	3.4
700	31	3,009	-3.2	-10.7	13	3.7
650	31	3,593	-6.1	-15.6	13	3.9
600	31	4,215	-10.1	-19.6	13	3.2
550	31	4,880	-14.3	-25.0	13	4.2
500	31	5,596	-19.0	-32.1	13	4.3
450	31	6,373	-24.1	-35.8	13	4.2
400	31	7,222	-30.2	-42.3	12	3.9
350	31	8,160	-37.9	-46.4	12	3.4
300	31	9,203	-45.7		11	2.8
250	31	10,397	-52.9		06	2.1
200	31	11,835	-51.5		11	.8
150	30	12,710	-49.8		20	.2
100	29	13,719	-49.5		26	.6
050	29	14,914	-49.9		25	1.8
000	28	16,375	-50.0		26	1.2
950	28	17,883	-49.9		25	.6
900	28	18,707	-49.7		25	1.2
850	28	19,716	-49.7		26	.8
800	26	20,912	-49.4		06	.1
750	26	22,376	-49.2		11	.8
700	25	24,263	-48.6		06	.8
650	25	25,664	-47.3		08	1.0
600	24	26,947	-45.4		07	.6
550	23	28,685	-42.2		09	.8
500	7	31,685	-39.9			

MALOJO, MARSHALL IS. 1014 MB

SFC	26	3	28.6	24.1	09	2.2
1000	26	95	28.9	23.0	08	3.4
950	26	548	28.0	21.5	09	4.6
900	26	1,020	25.9	18.2	09	5.0
850	26	1,514	17.9	14.4	10	5.2
800	26	2,032	15.0	11.8	10	4.8
750	26	2,579	13.0	8.3	10	4.6
700	26	3,156	9.9	4.9	11	5.0
650	26	3,770	6.5	.5	10	5.9
600	26	4,423	2.8	-3.3	10	6.5
550	25	5,124	-.9	-8.9	09	6.8
500	25	5,880	-4.9	-13.1	10	7.3
450	24	6,704	-9.0	-18.5	10	7.6
400	24	7,603	-14.9	-23.9	10	5.8
350	24	8,604	-21.9	-32.6	10	5.7
300	24	9,710	-30.1	-40.9	10	5.7
250	24	10,986	-40.0	-49.4	11	6.3
200	24	12,460	-52.0		10	5.8
150	24	13,313	-60.0		09	5.4
100	24	14,258	-67.9		09	4.1
050	24	15,330	-74.1		10	3.0
000	24	16,625	-76.3		12	1.7
950	23	17,931	-70.0		09	4.0
900	23	18,733	-66.3		10	4.1
850	23	19,674	-63.6		11	3.9
800	23	20,834	-60.2		10	4.5
750	23	22,205	-57.6		09	9.1
700	22	23,837	-53.9		09	22.8
650	20	25,218	-51.9		09	27.7
600	20	26,684	-48.7		09	30.6
550	18	28,606	-44.6		09	33.4

MEDFORD, OR 970 MB

SFC	31	401	13.7	11.3	27	.9
1000						
950	31	576	14.8	11.1	24	.6
900	31	1,034	13.7	9.4	24	.8
850	31	1,515	11.8	6.7	20	.9
800	31	2,021	9.5	.9	22	2.1
750	31	2,554	6.6	-2.2	22	3.4
700	31	3,117	3.0	-5.7	23	4.2
650	31	3,714	-.5	-9.7	23	4.5
600	31	4,356	-4.5	-15.2	23	4.9
550	31	5,049	-8.9	-19.9	23	5.2
500	31	5,790	-14.0	-26.0	24	5.8
450	31	6,552	-19.6	-32.0	24	6.7
400	31	7,416	-26.0	-37.1	23	6.4
350	31	8,371	-33.2	-43.1	23	6.4
300	31	9,433	-41.5	-48.2	24	5.9
250	31	10,659	-49.4		24	7.1
200	31	12,098	-52.8		24	8.7
150	31	12,938	-54.0		24	9.0
100	31	13,944	-55.9		24	9.3
050	31	15,100	-57.8		23	7.6
000	31	16,502	-58.5		22	4.4
950	31	17,904	-58.2		28	1.8
900	31	18,746	-57.8		13	1.7
850	31	19,721	-56.7		14	2.6
800	31	20,880	-55.2		10	3.5
750	31	22,318	-53.9		09	4.1
700	29	24,170	-51.0		08	6.2
650	25	25,358	-50.1		09	6.5
600	21	26,821	-48.0		08	7.9
550	14	28,733	-45.6		09	9.7
500	10	31,450	-42.3		09	11.2

MERIDA, MEXICO 1014 MB

SFC	30	11	21.8	21.4	11	.2
1000	30	128	24.5	22.9	12	2.5
950	30	580	23.1	19.9	13	4.5
900	30	1,051	20.8	14.9	12	4.1
850	30	1,544	17.8	10.7	11	3.8
800	30	2,061	15.2	6.0	11	3.5
750	30	2,605	12.3	.6	11	3.4
700	30	3,180	8.9	-3.1	10	3.3
650	30	3,791	5.5	-7.9	11	3.1
600	30	4,448	1.3	-10.3	10	3.2
550	30	5,135	-3.0	-14.4	09	3.3
500	30	5,884	-7.3	-21.1	07	3.5
450	30	6,697	-12.2	-25.7	07	4.0
400	30	7,588	-18.1	-32.6	06	4.3
350	30	8,575	-25.1	-38.0	06	4.0
300	30	9,674	-33.4	-44.5	05	3.1
250	30	10,927	-43.5		01	2.2
200	30	12,390	-55.4		04	3.3
150	30	13,230	-61.5		02	4.0
100	30	14,171	-67.6		04	4.2
050	30	15,256	-71.5		03	4.0
000	30	16,572	-71.6		07	6.2
950	29	17,900	-68.2		08	9.9
900	28	18,751	-63.4		08	11.2
850	28	19,704	-61.1		09	13.4
800	28	20,844	-57.9		09	16.0
750	28	22,261	-54.9		10	17.4
700	28	24,118	-50.8		09	19.2
650	28	25,312	-48.9		09	20.3
600	27	26,787	-46.3		09	21.1
550	26	28,715	-44.7		09	21.6
500	15	31,449	-39.7			

MIAMI, FL 1016 MB

SFC	31	4	25.4	23.2	03	.7
1000	31	141	25.8	23.4	09	1.4
950	31	593	23.0	22.5	11	2.6
900	31	1,064	20.0	16.9	13	3.3
850	31	1,556	16.9	13.3	13	3.2
800	31	2,072	14.3	9.3	13	3.9
750	31	2,615	11.4	4.8	13	4.3
700	31	3,189	8.5	.4	10	.8
650	31	3,799	5.1	-3.5	07	.8
600	31	4,448	1.5	-7.6	09	1.0
550	31	5,144	-2.4	-12.8	06	1.0
500	31	5,895	-6.9	-17.1	07	1.0
450	31	6,709	-12.2	-22.4	07	1.4
400	31	7,600	-18.1	-28.3	07	2.9
350	31	8,588	-25.1	-35.0	05	4.5
300	31	9,686	-33.5	-43.1	05	4.3
250	31	10,939	-43.7		05	4.3
200	31	12,480	-55.5		05	5.7
150	31	13,239	-61.8		05	6.9
100	31	14,180	-67.6		05	7.0
050	31	15,268	-70.5		06	7.1
000	31	16,595	-69.4		08	8.5
950	31	17,937	-66.3		08	9.2
900	31	18,751	-63.4		08	12.9
850	31	19,704	-61.1		09	14.2
800	30	20,844	-57.9		09	14.9
750	30	22,261	-54.9		10	16.9
700	30	24,118	-50.8		09	17.0
650	28	25,312	-48.9		09	17.5
600	27	26,787	-46.3		09	19.0
550	26	28,715	-44.7		09	18.6
500	15	31,449	-39.7			

MIDLAND, TX 918 MB

N	31	874	19.3	14.0	16	2.1
	31	1,047	21.5	14.8	18	5.5
	31	1,543	20.4	10.1	18	7.9
	31	2,064	17.3	6.3	16	5.2
	31	2,619	13.7	1.7	13	3.7
	31	3,190	9.5	-2.6	10	3.6
	31	3,801	5.5	-6.6	08	3.6
	31	4,450	1.4	-12.1	08	3.1
	31	5,145	-3.1	-17.5	08	1.9
	31	5,893	-7.5	-22.5	09	2.1
	31	6,706	-12.6	-27.7	10	1.9
	31	7,595	-18.5	-33.9	04	.7
	31	8,586	-25.8	-38.8	01	1.4
	31	9,675	-33.4	-46.8	34	4.0
	31	10,923	-44.4		34	5.7
	31	12,382	-55.3		33	6.6
	31	13,224	-60.4		34	6.2
	31	14,171	-66.1		33	5.0
	31	15,263	-71.1		34	3.7
	31	16,582	-69.9		34	2.8
	31	17,925	-65.9		33	5.1
	31	18,742	-63.2		08	6.9
	31	19,696	-60.4		09	9.3
	31	20,840	-57.9		09	10.6
	29	22,259	-54.9		09	10.7
	28	24,110	-52.1		08	13.1
	27	25,296	-50.1		09	14.6
	27	26,763	-47.3		09	14.1
	27	28,678	-44.7		09	14.1
	24	31,411	-40.8		09	16.1
	11	33,847	-37.1			

MONTERREY, MEXICO 965 MB

	31	423	24.3	19.7	10	.3
	31	587	21.0	19.6	11	1.4
	31	1,056	19.5	16.8	13	3.9
	31	1,548	17.9	12.1	13	5.5
	31	2,060	15.3	6.7	13	5.5
	31	2,611	12.4	1.3	13	4.1
	31	3,180	9.0	-3.3	12	2.4
	31	3,799	5.0	-6.2	10	1.9
	31	4,443	1.0	-10.1	08	2.2
	31	5,139	-3.2	-14.7	08	2.2
	31	5,887	-7.5	-22.5	08	3.4
	31	6,700	-12.2	-27.3	07	4.1
	31	7,589	-18.0	-33.7	05	4.2
	31	8,574	-25.7	-40.4	05	4.4
	31	9,670	-34.1	-48.2	04	4.9
	31	10,919	-44.3		03	5.8
	31	12,379	-55.1		03	6.0
	31	13,221	-60.7		02	6.8
	31	14,167	-66.2		02	6.6
	30	15,257	-71.6		04	5.9
	30	16,571	-71.2		07	5.7
	30	17,902	-67.3		08	8.6
	30	19,213	-64.0		09	11.2
	30	19,660	-62.2		09	12.7
	29	20,792	-59.9		09	15.3
	28	22,187	-56.9		09	16.4
	28	24,066	-52.4		09	19.3
	28	25,226	-49.7		09	20.1
	27	26,657	-47.2		09	20.6
	27	28,608	-44.0		08	19.4
	24	31,338	-41.3			

RAWINSONDE DATA

Average monthly values

AUGUST 1970

MONETT, MO
994 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	428	17.9	15.3	14	1.6
1000						
950	31	6..	20.8	13.9	17	3.0
900	31	1,071	20.4	9.0	22	3.4
850	31	1,555	17.4	6.6	24	2.2
800	31	2,078	14.4	4.1	30	2.9
750	31	2,...	11.1	.1	32	3.1
700	31	3,...	7.1	-.4	34	3.3
650	31	3,...	3.0	-2.4	35	2.2
600	31	4,...	-.6	-12.7	36	2.4
550	31	5,133	-4.6	-19.0	34	1.7
500	31	5,...	-9..	-24.6	31	2.5
450	31	6,686	-14.1	-29.0	31	2.9
400	31	7,569	-20.5	-33.5	31	4.7
350	31	8,546	-27.6	-39.5	31	6.7
300	31	9,634	-35.9	-46.1	31	7.4
250	31	10,876	-45.4		30	9.4
200	31	12,...	-55.4		30	11.1
175	31	13,175	-59.4		31	9.8
150	31	14,131	-63.3		31	9.3
125	31	15,242	-66.3		31	5.2
100	30	16,590	-66.0		31	2.1
80	30	17,954	-63.1		04	2.8
70	30	18,781	-60.6		07	4.4
60	30	19,746	-58.3		09	5.5
50	30	,...	-55.5		09	6.4
40	29	22,331	-53.4		09	7.6
30	28	24,193	-50.9		09	9.7
25	27	25,385	-49.4		09	9.9
20	27	26,855	-47.2		09	11.3
15	26	28,763	-44.8		09	13.1
10	14	31,491	-41.5		09	13.5
7						
5						

MARYVILLE, TN
948 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	10..	18.6	16.9	05	.7
	9	195	..	..8		
950	31	608	20.8	13.8	15	1.5
900	31	1,075	..	11.1	10	1.3
850	31	1,562	15.1	5.7	6	1.1
800	31	2,...	12.5	.9	31	.4
750	31	2,613	10.0	-3.9	32	1.8
700	31	3,183	7.0	-8.5	31	2.3
650	31	3,789	..	-11.1	30	2.5
600	31	4,435	..	-14.3	29	3.1
550	31	5,127	-4.1	-18.8	28	4.1
500	31	5,857	-8.7	-23.8	29	4.4
450	31	6,681	-14.0	-29.4	29	5.3
400	31	7,564	-20.4	-33.5	28	6.5
350	31	8,542	-27.5	-39.4	29	7.6
300	31	9,678	-35.7	-46.9	29	8.1
250	31	10,874	-45.5		28	9.6
200	31	12,329	-55.7		28	11.0
175	31	13,170	-60.5		27	11.3
150	31	14,121	-64.2		28	8.9
125	31	15,229	-66.6		28	4.2
100	31	16,580	-65.5		01	1.0
80	31	17,946	-62.7		07	2.4
70	31	18,774	-60.8		08	4.5
60	31	19,738	-58.4		08	6.3
50	29	20,993	-55.8		09	7.1
40	29	22,320	-53.7		09	8.1
30	28	24,185	-50.7		09	9.8
25	27	25,377	-49.0		08	11.7
20	26	26,851	-46.4		09	13.1
15	24	28,782	-43.9		09	14.5
10	12	31,553	-39.8			
7						
5						

ROME, GA
1019 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	8	9..	8.8	04	.8
	28	92	10.8	7.6	11	.4
950	31	508	9.7	5.9	15	1.4
900	31	9..	7.5	2.6	17	2.9
850	31	1,425	5.1	-.9	18	3.4
800	31	1,918	2.4	-3.2	17	4.1
750	31	2,437	-.5	-7.3	17	4.6
700	31	2,986	-3.3	-13.2	17	4.6
650	31	3,569	-6.4	-15.1	17	4.6
600	31	4,191	-10.1	-20.3	16	4.2
550	31	4,856	-14.5	-24.6	16	4.2
500	31	5,571	-19.3	-29.8	19	4.1
450	31	6,347	-24.6	-33.0	16	3.7
400	31	7,194	-30.6	-40.0	15	3.3
350	31	8,133	-37.3	-44.2	15	3.2
300	31	9,178	-44.9		13	2.4
250	31	10,375	-52.8		12	1.5
200	31	11,809	-52.9		25	.7
175	31	12,674	-50.8		22	1.7
150	31	13,691	-50.1		23	2.9
125	31	14,873	-50.3		24	2.6
100	31	16,329	-50.2		24	2.2
80	31	17,787	-49.8		23	2.1
70	31	18,641	-49.8		25	2.1
60	31	19,671	-49.5		24	1.4
50	31	20,866	-49.7		28	.7
40	31	22,319	-49.7		33	.5
30	28	24,204	-49.3		35	1.4
25	27	25,400	-47.7		05	1.6
20	26	26,881	-46.4		02	1.4
15	12	28,790	-43.6		05	1.6

NORTH PLATTE, NE
829 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	847	15.0	10.7	14	1.1
950	31	1,033	19.5	12.5	19	4.1
900	31	1,527	20.0	9.4	20	6.8
850	31	2,048	17.3	8.6	21	5.5
800	31	2,597	13.7	3.3	23	4.9
750	31	3,174	9.6	.5	24	5.0
700	31	3,785	5.1	-2.9	24	5.5
650	31	4,432	.5	-7.4	24	5.2
600	31	5,124	-4.1	-13.6	25	5.9
550	31	5,869	-9.3	-18.7	26	6.5
500	31	6,676	-14.3	-25.8	26	7.3
450	31	7,558	-20.7	-32.4	26	7.4
400	31	8,534	-28.3	-39.0	26	8.9
350	31	9,617	-36.9	-46.7	25	10.6
300	30	10,850	-46.7		26	12.9
250	30	12,300	-55.1		27	16.3
200	29	13,147	-58.6		27	16.5
175	29	14,108	-62.2		27	12.2
150	28	15,226	-64.9		28	7.9
125	29	16,584	-64.2		29	3.4
100	28	17,962	-61.0		02	1.0
80	28	18,795	-59.5		06	2.0
70	28	19,766	-57.0		07	3.5
60	28	20,928	-54.2		08	4.5
50	28	22,365	-52.8		09	5.8
40	27	24,238	-49.6		08	7.5
30	26	26,926	-47.9		09	7.8
25	26	26,918	-45.8		09	8.7
20	23	28,844	-43.1		09	9.8
15	22	31,604	-38.5		08	12.5
10	16	34,069	-35.0		09	12.2
7	8	36,439	-30.5			
5						

OAKLAND, CA
1010 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	0	14.9	13.2	25	1.0
950	31	139	14.5	12.4	26	1.6
900	31	574	14.9	7.0	27	2.4
850	31	1,033	15.6	2.2	27	2.1
800	31	1,517	14.3	-2.1	25	1.8
750	31	2,026	12.0	-5.2	23	1.6
700	31	2,563	8.9	-9.0	22	2.8
650	31	3,130	5.4	-12.5	21	3.4
600	31	3,732	2.1	-15.4	22	4.3
550	31	4,374	-1.9	-19.0	22	5.5
500	31	5,060	-6.2	-24.7	23	7.5
450	31	5,798	-11.2	-29.0	23	8.4
400	31	6,597	-17.5	-33.9	24	9.4
350	31	7,467	-24.2	-39.3	24	11.1
300	31	8,428	-32.0	-45.7	24	12.2
250	30	9,490	-40.2	-50.3	24	14.4
200	30	10,718	-48.3		24	17.0
175	30	12,170	-53.3		24	17.4
150	30	13,020	-55.8		24	17.5
125	30	14,002	-58.4		24	13.9
100	30	15,142	-60.9		24	11.1
80	30	16,524	-62.1		24	4.7
70	30	17,906	-61.0		15	1.7
60	30	18,739	-59.4		09	3.6
50	30	19,700	-58.6		09	4.5
40	30	20,850	-56.5		09	5.4
30	30	22,282	-54.2		09	7.1
25	29	24,137	-51.4		08	9.7
20	28	25,722	-50.2		08	10.3
15	26	26,784	-48.4		09	11.6
10	20	28,687	-45.8		09	13.0

OMAHA, NE
978 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	403	19.3	14.2	17	2.1
1000						
950	31	580	21.4	12.7	19	3.2
900	31	1,050	21.0	8.6	21	3.5
850	31	1,542	18.7	4.4	23	3.4
800	31	2,060	15.4	1.2	24	3.8
750	31	2,603	11.8	-1.4	25	3.4
700	31	3,176	7.7	-3.4	27	3.3
650	31	3,783	3.9	-8.9	27	3.6
600	31	4,429	-.4	-13.2	27	3.3
550	31	5,119	-5.1	-18.4	29	4.0
500	31	5,861	-9.6	-24.8	29	3.4
450	31	6,667	-14.8	-29.6	29	3.5
400	31	7,548	-21.3	-35.5	30	4.9
350	31	8,523	-28.2	-40.9	30	8.3
300	31	9,606	-36.9	-48.5	30	9.9
250	31	10,842	-46.6		29	11.5
200	31	12,290	-55.7		29	13.4
175	31	13,134	-59.3		29	14.8
150	31	14,092	-62.7		30	12.9
125	31	15,211	-64.2		29	7.8
100	31	16,574	-64.5		31	4.0
80	31	17,946	-61.6		35	1.4
70	31	18,778	-59.6		03	1.7
60	31	19,747	-57.5		07	2.8
50	31	20,905	-55.3		07	4.2
40	30	22,338	-53.0		07	5.0
30	30	24,206	-50.0		09	6.7
25	30	25,402	-48.5		09	7.6
20	28	26,873	-46.6		08	8.6
15	26	28,797	-43.9		09	10.0
10	17	31,522	-40.0		09	11.8
7						

PAGO PAGO, AMERICAN SAMOA
1 14 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	5	27.6	22.2	10	5.1
1000	31	124	25.1	20.6	10	5.6
950	31	573	21.4	18.5	10	6.2
900	31	1,040	17.9	15.2	09	6.0
850	31	1,529	15.3	10.9	09	5.2
800	31	2,043	14.4	4.3	09	4.1
750	31	2,587	12.9	-2.0	09	3.5
700	31	3,163	9.5	-6.7	10	3.2
650	31	3,774	6.0	-10.1	12	2.9
600	31	4,425	2.5	-15.8	14	2.6
550	31	5,124	-1.5	-20.8	12	1.3
500	31	5,876	-6.0	-25.1	12	1.0
450	31	6,689	-10.8	-28.6	32	.3
400	31	7,588	-16.7	-34.6	30	1.3
350	31	8,583	-23.8	-40.2	28	1.9
300	31	9,688	-32.6	-47.5	25	5.6
250	31	10,942	-42.8		26	7.8
200	31	12,410	-54.5		26	10.0
175	31	13,252	-61.2		26	9.8
150	31	14,194	-67.9		26	5.4
125	31	15,272	-74.7		26	7.9
100	31	16,553	-78.3		25	5.1
80	31	17,861	-73.3		27	4.7
70	31	18,632	-68.2		26	3.5
60	31	19,568	-63.4		30	2.1
50	31	20,702	-58.8		06	2.1
40	30	22,119	-54.5		08	5.2
30	30	23,967	-53.2		09	9.5
25	28	25,145	-51.9		09	11.8
20	28	26,601	-48.5		09	12.8
15	24	28,515	-45.3		09	13.8
10	20	31,249	-40.4		09	13.3
7	5	33,646	-38.7			

PEORIA, IL
956 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	200	15.7	13.3	10	.5
950	31	608	19.4	9.8	21	2.2
900	31	1,071	17.1	6.7	25	2.1
850	31	1,557	14.9	1.7	30	2.2
800	31	2,069	12.3	-.0	31	2.2
750	31	2,607	9.5	-3.4	31	2.2
700	31	3,176	6.1	-5.9	31	2.3
650	31	3,780	2.5	-9.8	32	2.5
600	31	4,423	-1.5	-12.9	32	2.4
550	31	5,110	-5.4	-19.9	31	2.8
500	31	5,852	-10.5	-25.0	31	2.3
450	31	6,655	-15.9	-30.7	30	2.5
400	31	7,532	-21.9	-36.0	30	2.3
350	31	8,490	-28.8	-41.9	30	1.2
300	31	9,586	-37.2	-48.5	30	1.6
250	31	10,820	-46.8		29	1.9
200	31	12,269	-55.7		29	1.0
175	31	13,113	-59.0		30	1.6
150	31	14,076	-61.1		30	1.7
125	31	15,202	-63.4		30	2.0
100	31	16,572	-62.8		31	4.2
80	31	17,953	-60.6		34	1.6
70	31	18,788	-58.9		03	2.2
60	31	19,780	-56.9		07	3.0
50	30	20,923	-54.3		08	4.7
40	30	22,360	-52.5		09	8.2
30	29	24,231	-49.9		08	9.4
25	29	25,427	-48.2		08	9.4
20	26	26,926	-46.1		09	10.0
15	21	28,852	-43.3		9	12.0

PITTSBURGH, PA
978 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	359	14.5	12.8	29	.5
950	31	810	17.3	12.3	29	1.4
900	31	1,071	15.4	8.9	30	2.5
850	31	1,554	12.5	5.3	30	3.0
800	31	2,081	10.3	-.1	30	4.0
750	31	2,597	8.2	-5.6	29	4.9
700	31	3,163	5.5	-9.5	28	5.2
650	31	3,766	2.3	-12.3	28	5.8
600	31	4,408	-1.4	-16.8	28	6.4
550	31	5,096	-5.5	-21.0	28	7.3
500	31	5,837	-10.0	-26.1	28	8.1
450	31	6,641	-15.5	-30.7	28	8.9
400	31	7,519	-22.0	-35.3	28	9.8
350	31	8,490	-29.3	-42.5	28	10.0
300	31	9,569	-37.6	-49.0	28	12.0
250	31	10,803	-46.7		28	15.2
200	31	12,253	-55.9		28	18.1
175	31	13,099	-58.4		28	15.8
150	31	14,063	-60.9		28	11.9
125	31	15,191	-62.7		27	8.2
100	31	16,586	-62.4		28	4.5
80	31	17,982	-59.9		30	1.1
70	31	18,790	-57.9		07	.9
60	31	19,786	-56.4		08	2.9
50	31	20,931	-54.4		09	4.3
40	30	22,368	-52.2		09	5.7
30	29	24,246	-49.3		09	7.4
25	27	25,443	-47.9		09	9.1
20	26	26,926	-46.1		09	10.0
15	23	28,844	-43.1		09	9.8
10	22	31,604	-38.5		08	12.5
7	16	34,069	-35.0		09	12.2
5	8	36,439	-30.5			

PONAPE, CAROLINE IS.
1005 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	39	28.0	24.2	29	.3
1000	31	82	26.2	22.6	29	.3
950	31	534	23.1	20.5	04	.4
900	31	1,005	20.1	17.5	07	1.2
850	31	1,497	17.2	14.4	07	2.2
800	31	2,015	15.1	11.2	07	2.7
750	31	2,560	12.4	7.9	09	3.8
700	31	3,137	9.6	4.2	09	4.7
650	31	3,749	5.9	.5	09	6.0
600	31	4,401	2.2	-3.3	09	7.7
550	31	5,100	-1.4	-8.5	09	7.1
500	31	5,854	-5.3	-12.6	09	7.2
450	31	6,676	-10..	-19.9	09	8.0
400	31	7,572	-15.2	-27.6	09	7.7
350	31	8,573	-22.4	-34.6	08	6.8
300	31	9,684	-30.7	-42.8	09	7.5
250	31	10,951	-41.0	-48.8	09	7.1
200	31	12,427	-53.8		09	7.8
175	31	13,271	-60.0		09	8.2
150	31	14,213	-68.3		07	6.6
125	31	15,288	-75.4		08	5.5
100	31	16,568	-76.3		08	4.3
80	31	17,873	-70.3		08	4.3
70	31	18,674	-66.9		09	3.9
60	31	19,612	-63.8		09	4.3
50	31	20,740	-60.7		09	4.7
40	28	22,137	-58.1		09	9.7
30	27	23,965	-54.7		09	22.8
25	25	25,137	-51.8		09	28.0
20	25	26,595	-48.0		09	31.1
15	23	28,500	-44.6		09	33.8
10	18	31,230	-39.7		09	38.8
7						
5						

PORTLAND, ME
1015 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	20	15.7	12.9	28	.5
1000	31	149	17.2	12.7	30	.7
950	31	588	17.0	9.4	27	1.5
900	31	1,048	14.6	7.4	26	2.6
850	31	1,530	12.2	3.6	27	4.2
800	31	2,036	10.0	-.6	26	5.5
750	31	2,571	7.6	-5.0	27	6.8
700	31	3,136	4.2	-8.6	27	7.1
650	31	3,735	.8	-11.5	27	8.9
600	31	4,374	-2.8	-15.6	27	10.1
550	31	5,059	-6.9	-19.0	27	10.5
500	31	5,796	-11.5	-25.8	27	11.4
450	31	6,597	-16.5	-30.7	27	12.6
400	31	7,472	-22.2	-35.6	27	13.6
350	31	8,443	-29.4	-41.5	27	15.0
300	31	9,521	-37.8	-47.0	26	17.3
250	31	10,754	-46.8		26	20.5
200	31	12,204	-55.3		26	22.1
175	31	13,051	-58.0		26	19.9
150	31	14,019	-59.1		26	15.6
125	31	15,159	-60.2		26	11.8
100	31	16,550	-60.1		26	8.3
80	31	17,949	-57.9		27	2.8
70	31	18,794	-56.8		26	1.2
60	31	19,775	-55.2		09	.8
50	31	20,945	-53.2		09	2.8
40	31	22,388	-51.4		09	4.7
30	30	24,271	-49.0		09	6.2
25	30	25,472	-47.5		08	7.5
20	27	26,954	-45.4		08	8.5
15	21	28,875	-42.8		09	8.9
10	4	31,577	-39.7			

QUILLAYUTE, WA
1011 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	58	11.8	11.1	04	.2
1000	31	145	11.8	11.2	12	.1
950	31	575	10.7	8.1	23	1.2
900	31	1,025	9.6	4.7	25	1.6
850	31	1,499	8.2	.6	24	2.4
800	31	1,998	6.1	-3.1	23	3.4
750	31	2,525	3.4	-5.9	24	4.2
700	31	3,081	.3	-9.5	24	5.2
650	31	3,672	-2.7	-13.6	25	5.5
600	31	4,303	-6.2	-18.1	24	6.5
550	31	4,978	-10.6	-21.1	24	7.0
500	31	5,706	-15.0	-25.0	23	8.6
450	31	6,495	-20.3	-31.2	23	9.9
400	31	7,356	-26.5	-38.0	23	9.6
350	31	8,310	-33.6	-43.0	23	9.9
300	31	9,371	-41.6	-46.9	22	9.5
250	31	10,584	-50.2		23	10.4
200	31	12,028	-53.2		23	10.9
175	31	12,890	-53.0		23	10.8
150	31	13,884	-53.7		23	9.6
125	31	15,050	-55.5		23	6.9
100	31	16,475	-56.5		22	5.2
80	31	17,891	-56.2		22	3.1
70	31	18,743	-55.2		19	1.6
60	31	19,728	-54.9		13	1.3
50	31	20,896	-54.0		10	2.1
40	31	22,334	-52.6		09	2.6
30	31	24,201	-50.5		07	3.2
25	30	25,396	-48.9		08	5.0
20	28	26,872	-47.0		09	4.4
15	21	28,784	-43.9		09	5.3

RAPID CITY, SD
906 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	966	16.2	9.7	34	.6
950	29	1,030	17.7	9.5	32	.7
900	31	1,517	19.0	5.7	22	2.8
850	31	2,036	16.5	3.2	22	3.7
800	31	2,583	13.3	-.5	24	4.1
750	31	3,158	9.0	-4.1	26	4.5
700	31	3,767	4.4	-6.5	26	4.0
650	31	4,414	-.4	-10.7	27	4.8
600	31	5,103	-5.2	-16.5	26	7.0
550	31	5,844	-10.4	-22.9	26	7.7
500	31	6,648	-15.5	-29.2	26	8.7
450	31	7,528	-21.9	-34.5	25	10.6
400	31	8,497	-29.6	-42.0	25	13.2
350	31	9,574	-38.4	-48.1	25	13.6
300	31	10,802	-47.8		25	15.2
250	31	12,247	-55.7		26	17.6
200	31	13,092	-58.2		26	14.4
175	31	14,057	-60.6		26	10.1
150	31	15,187	-62.5		26	8.3
125	31	16,554	-62.8		27	8.7
100	31	17,941	-60.3		28	.9
80	31	18,777	-58.6		02	.9
70	31	19,730	-57.0		07	2.2
60	31	20,911	-54.5		07	2.7
50	31	22,348	-52.3		07	4.1
40	31	24,219	-49.8		08	4.5
30	28	25,420	-48.1		09	4.2
25	28	26,898	-46.1		09	4.6
20	27	28,820	-43.5		08	8.1
15	12	31,562	-39.1			

ST CLOUD, MN
981 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s
SFC	31	316	14.5	11.7	13	.4
950	30	592	17.7	11.5

RAWINSONDE DATA

Average monthly values

RAWINSONDE DATA

Average monthly values

AUGUST 1976

WASHINGTON DULLES INT. AP, VA — 1009 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	49	16.1	14.7	34	.4
1000	30	147	18.3	15.4	34	1.1
950	31	607	19.3	11.5	33	2.0
900	31	1,071	16.9	8.6	33	3.4
850	31	1,556	13.9	5.8	31	3.3
800	31	2,066	11.4	1.3	29	3.2
750	31	2,603	8.6	-3.0	29	3.8
700	31	3,170	5.8	-9.7	28	4.3
650	31	3,774	3.0	-13.1	28	4.5
600	31	4,418	-.5	-17.3	28	4.8
550	31	5,108	-4.7	-20.6	28	5.3
500	31	5,852	-9.1	-25.9	28	7.1
450	31	6,659	-14.7	-30.8	27	8.9
400	31	7,539	-21.1	-39.4	27	7.8
350	30	8,516	-27.9	-41.4	27	9.9
300	30	9,602	-36.3	-47.8	27	11.9
250	30	10,841	-45.8		27	14.8
200	30	12,293	-55.8		28	18.7
175	30	13,135	-60.1		28	18.8
150	30	14,090	-62.9		27	17.1
125	30	15,207	-64.7		27	8.4
100	30	16,571	-63.5		28	9.3
90	30	17,949	-60.9		28	8.5
70	30	18,783	-59.4		28	11.5
60	30	19,752	-57.5		28	9.4
50	30	20,911	-54.9		09	4.8
40	30	22,345	-52.8		09	8.4
30	29	24,217	-49.7		09	9.3
25	28	25,414	-48.3		09	8.4
20	28	26,884	-46.1		09	10.2
15	28	28,485	-43.0		09	11.3
10	17	31,561	-40.0			

ALBUQUERQUE, NM — 858 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	44	21.5	10.7	02	.3
1000	31	143	22.0	10.6	09	.2
950	31	597	21.2	7.6	35	.5
900	31	1,058	19.3	4.8	11	.4
850	31	1,548	16.5	11.9	06	.4
800	31	2,064	13.9	8.2	04	.5
750	31	2,609	10.9	5.3	33	.4
700	31	3,179	7.9	-.6	25	.6
650	31	3,788	4.7	-7.1	27	1.0
600	31	4,436	1.4	-11.3	09	.4
550	31	5,132	-2.5	-17.5	26	.7
500	31	5,883	-6.8	-22.6	30	1.5
450	31	6,697	-12.1	-28.5	26	1.3
400	31	7,587	-18.3	-34.9	30	.7
350	30	8,573	-25.3	-40.7	29	1.8
300	30	9,671	-33.5	-47.1	28	.9
250	30	10,925	-43.6		26	3.5
200	30	12,388	-54.9		27	3.1
175	30	13,230	-60.8		29	3.5
150	30	14,178	-66.6		31	3.1
125	30	15,267	-70.1		36	1.9
100	30	16,598	-68.1		27	3.7
90	30	17,951	-64.2		08	5.4
70	30	18,773	-62.		08	7.1
60	30	19,731	-60.		08	9.7
50	30	20,876	-56.9		09	11.9
40	30	22,304	-54.0		09	12.7
30	29	24,166	-50.6		09	13.1
25	28	25,308	-49.0		08	13.7
20	28	26,831	-46.7		08	15.1
15	27	28,761	-43.9		09	16.7
10	14	31,520	-39.6		09	19.9

LINEMLOSS, NV — 870 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	1,312	11.4	4.4	15	.5
1000	31	1,508	15.6	3.6	04	1.2
950	31	2,002	13.8	.5	33	.2
900	31	2,562	10.1	-2.2	23	1.6
850	31	3,131	5.9	-5.4	22	4.0
800	31	3,734	2.0	-8.7	22	4.9
750	31	4,374	-2.3	-12.8	22	5.5
700	31	5,060	-7.0	-19.0	22	10.9
650	31	5,796	-12.1	-26.4	22	11.2
600	31	6,593	-17.8	-31.4	22	11.6
550	31	7,463	-24.2	-37.3	23	12.4
500	31	8,426	-31.5	-43.2	23	14.7
450	30	9,494	-39.9	-49.4	23	17.9
400	30	10,717	-48.2		23	19.3
350	30	12,165	-53.8		23	18.6
300	30	13,022	-54.8		23	14.7
250	30	14,093	-56.9		23	14.2
200	30	15,152	-59.3		23	14.0
175	30	16,544	-60.7		22	4.8
150	30	17,994	-59.8		16	1.8
125	30	18,771	-58.6		13	3.0
100	29	19,743	-57.3		10	3.8
90	29	20,901	-55.5		08	4.0
70	29	22,330	-53.4		08	5.8
60	29	24,234	-50.7		09	7.2
50	28	25,384	-49.6		08	7.5
40	27	26,853	-47.4		08	8.7
30	23	28,773	-44.6		09	11.1

WINSLOW, AZ — 854 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	1,487	16.4	7.7	10	2.1
1000	31	1,531	17.7	7.1	17	2.1
950	31	2,053	19.4	4.4	33	4.3
900	31	2,605	16.0	1.3	33	5.0
850	31	3,186	11.8	-1.0	32	5.0
800	31	3,801	6.7	-3.9	21	5.1
750	31	4,453	1.5	-7.8	21	5.2
700	31	5,147	-3.7	-13.7	22	5.4
650	31	5,893	-9.7	-21.5	23	6.0
600	31	6,702	-13.9	-28.4	24	7.9
550	31	7,585	-20.2	-34.7	25	9.4
500	30	8,563	-27.4	-41.0	25	11.4
450	30	9,651	-35.7	-48.4	24	13.6
400	29	10,893	-45.0		25	17.3
350	28	12,352	-54.5		24	20.5
300	28	13,197	-59.8		24	19.5
250	27	14,149	-64.8		25	15.7
200	27	15,251	-68.6		24	10.0
175	27	16,585	-68.7		22	3.5
150	27	17,936	-64.0		11	2.0
125	27	18,759	-61.7		12	4.3
100	26	19,720	-59.3		09	6.7
90	26	20,869	-57.0		10	7.2
70	26	22,288	-54.9		09	9.9
60	23	24,137	-51.6		09	11.4
50	22	25,326	-49.7		09	12.0
40	22	26,794	-47.9		09	12.3
30	19	28,700	-45.4		09	14.3
25	5	31,418	-41.0			

YAKUTAT, AK — 1016 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	12	10.3	9.5	10	1.3
1000	30	118	11.2	10.0	11	1.6
950	31	543	10.1	7.1	13	2.1
900	31	991	7.7	3.8	14	3.4
850	31	1,461	5.5	.0	15	3.8
800	31	1,955	3.0	-4.4	14	4.1
750	31	2,476	-.1	-6.5	13	3.9
700	31	3,022	-3.6	-9.9	13	3.9
650	31	3,607	-6.9	-13.9	13	4.1
600	31	4,228	-10.0	-18.6	14	4.0
550	31	4,894	-14.8	-23.6	14	4.0
500	31	5,606	-19.0	-29.2	13	3.8
450	31	6,381	-24.9	-35.1	13	4.2
400	31	7,227	-31.2	-40.5	13	3.7
350	31	8,162	-38.2	-44.4	12	3.9
300	31	9,202	-46.1		12	4.4
250	31	10,397	-52.1		13	3.7
200	31	11,840	-49.0		20	1.6
175	31	12,724	-48.9		23	1.9
150	31	13,736	-49.4		24	3.1
125	31	14,929	-50.2		25	2.8
100	31	16,385	-50.6		24	2.9
90	23	17,827	-50.3		23	2.3
70	23	18,699	-50.4		24	2.1
60	21	19,706	-50.3		24	1.8
50	21	20,896	-50.3		23	1.1
40	20	22,350	-50.5		18	.7
30	19	24,229	-49.1		23	.3
25	18	25,429	-47.0		06	.5
20	17	26,909	-45.7		04	.7
15	16	28,844	-43.4		10	1.6
10	10	31,628	-39.0			

WAP, CAROLINE IS. — 1008 MB

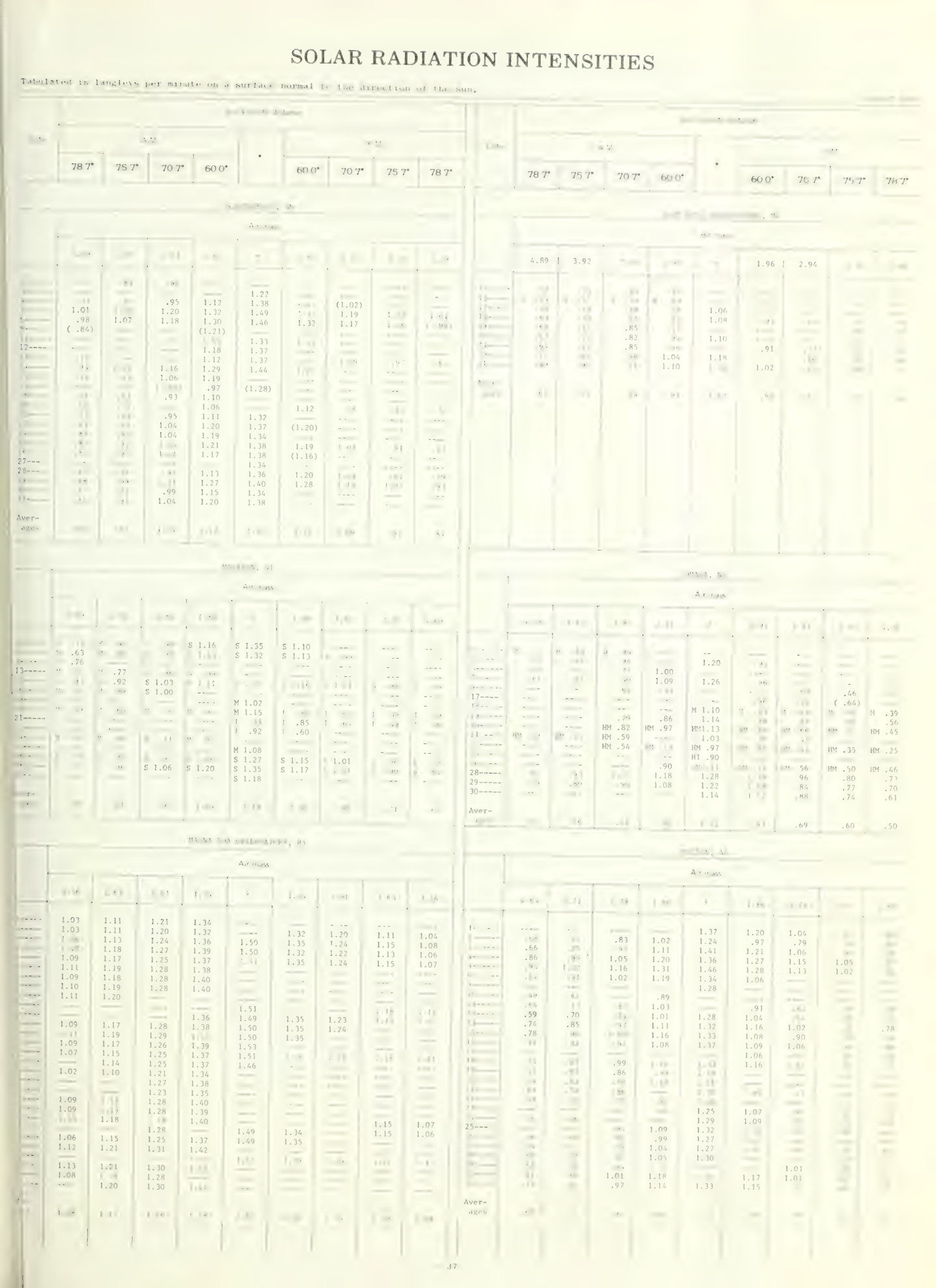
Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	14	27.2	24.4	25	.5
1000	31	84	26.2	23.6	23	.6
950	31	537	23.0	21.1	24	1.2
900	31	1,008	20.2	17.4	24	.8
850	31	1,500	17.5	14.3	24	.4
800	31	2,018	15.3	10.6	23	.8
750	31	2,564	12.5	7.1	16	.8
700	31	3,140	9.2	3.5	13	1.0
650	31	3,752	5.9	.1	12	2.2
600	31	4,404	2.1	-2.8	10	2.8
550	31	5,103	-1.7	-7.2	11	3.1
500	30	5,856	-5.8	-12.5	10	4.0
450	30	6,675	-11.4	-17.7	1	5.1
400	30	7,573	-18.6	-24.5	10	4.6
350	30	8,570	-22.8	-32.0	09	5.8
300	30	9,679	-31.0	-42.4	09	5.7
250	30	10,944	-41.6		09	8.0
200	30	12,417	-54.3		07	6.6
175	30	13,260	-61.1		07	7.4
150	29	14,199	-68.8		08	8.4
125	29	15,271	-75.6		08	7.1
100	29	16,554	-76.2		08	8.8
90	29	17,857	-71.0		09	10.7
70	29	18,656	-67.1		08	10.3
60	28	19,592	-64.3		08	10.3
50	28	20,716	-61.3		09	10.2
40	28	22,110	-58.6		09	14.5
30	27	23,938	-54.0		09	22.4
25	27	25,116	-51.2		09	28.0
20	26	26,576	-48.9		09	32.0
15	24	28,484	-44.4		09	34.4
10	17	31,230	-40.6			

YUCCA FLAT, NV — 881 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	1,198	14.1	.9	22	.7
1000	31					
950	31					
900	31					
850	31	1,503	21.4	3.0	21	3.2
800	31	2,025	17.9	.3	19	6.1
750	31	2,573	14..	-2.7	19	7.4
700	31	3,150	9.4	-6.5	19	7.4
650	31	3,759	5.1	-10.4	19	7.7
600	31	4,407	.4	-14.0	20	8.1
550	31	5,099	-4.3	-18.8	21	9.7
500	31	5,843	-9.5	-24.3	22	11.1
450	30	6,650	-15.1	-29.9	23	13.1
400	30	7,529	-21.8	-35.4	23	14.6
350	30	8,500	-29.2	-41.7	24	17.2
300	29	9,582	-37.4	-49.0	24	20.4
250	28	10,813	-46.8		24	23.8
200	28	12,266	-54.6		24	25.8
175	28	13,114	-57.9		24	25.0
150	28	14,080	-60.5		24	19.7
125	28	15,208	-63.5		23	13.0
100	28	16,570	-65.3		22	4.3
90	28	17,939	-62.2		16	2.1
70	28	18,767	-60.8		12	2.3
60	28	19,731	-58.7		10	3.6
50	28	20,883	-56.1		09	5.6
40	28	22,306	-54.6		09	6.4
30	27	24,159	-51.8		09	8.4
25	27	25,343	-50.8		09	9.4
20	26	26,804	-48.6		09	11.2
15	19	28,707	-46.		09	12.6
10	9	31,449	-42.6			

SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun.



SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

AUGUST 1976

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
	---	---	515	[illegible]	747	744	[illegible]	[illegible]	[illegible]	468	414	574	577	548	497	490	436	485	538	541	[illegible]	[illegible]	547	487	615	582	---	61[illegible]	618	591	554	577
	4[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5[illegible]	[illegible]	384	[illegible]	[illegible]	415	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	88	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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NET RADIATION

Net radiation in langleys per day [illegible]

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .	225	242	90	140	200	132	72	167	69	-4	84	-4	67	139	91	96	47	24	47	69	181	68	146	194	146	158	90	61	99	158	132	124

SOLAR ULTRA-VIOLET RADIATION DATA

[illegible]

Date. . . .	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Langleys. . .																																

[illegible]

TOTAL OZONE DATA

[illegible]

[illegible]

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean (C)
[illegible]																																

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

AUGUST 1976

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
[illegible]	---	---	[illegible]	[illegible]	747	736	[illegible]	[illegible]	[illegible]	469	[illegible]	[illegible]	577	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	615	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NET RADIATION

Net radiation in langleys per day [illegible] of station, [illegible]

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys	[illegible]	142	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	181	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	121

SOLAR ULTRA-VIOLET RADIATION DATA

[illegible] and monthly means in [illegible]

Date	[illegible]
Langleys	[illegible]

TOTAL OZONE DATA

[illegible] total ozone data are obtained from measurements made with a Dobson [illegible] spectrophotometer and are [illegible] to local apparent noon. The data are observed in the [illegible] Service [illegible] Station operated "[illegible]" of [illegible] for [illegible], [illegible], [illegible] data.

Units: Milli-centimeters

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

REFERENCE NOTES

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES Dates in the table apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

+ And also on an earlier date or dates.
D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile data can be evaluated.

B Number of days maximum 21.1°C. or above for Alaskan Stations.
Y Peak Gust.
+ And also on an earlier date or dates.
U Indicates Urban site.
R Indicates Rural site.
Ø Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publication.

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters
°F. = $\frac{9}{5}$ x °C + 32
1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

° Includes crop damage.
C Crop damage.
* No occurrence of storms or unusual weather phenomena reported.
^ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
Ø For breakdown of "All Others," and for detailed listing of other storms, see the Environmental Data Service, NOAA, monthly publication STORM DATA.
‡ No Storm Data Report received for this State.
<> Report Incomplete.
† Storm damages are placed in categories varying from 1 to 9 as follows:
1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5 Million
7 $5 Million to $50 Million
8 $50 Million to $500 Million
9 $500 Million to $5 Billion.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1/ Flooding continued at the end of the month.
NA Not available.

FLOOD STAGE DATA:

Highest Stage Observed
1/ Continued at end of month
Highest Stage of Record
E Estimated
P Provisional (Flood Stage)
U Unknown

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
+ Observations for these stations are scheduled at 0000 G.C.T.
† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per [illegible]
used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

()	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
*	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeterminable
BD	Blowing Dust	F	Fog	I	Intense Haze-indeterminable		
BS	Blowing Sand	GF	[illegible]	K	Smoke	R	Rime
D	Dust	H	Haze	KI	Intense Smoke	S	Slight Haze-indeterminable
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		

SOLAR RADIATION TOTALS: Langley is the unit used to denote one gram calorie per square centimeter.

* Values with an asterisk are interpolated.
Data are only for those stations equipped with Eppley Model II sensors.

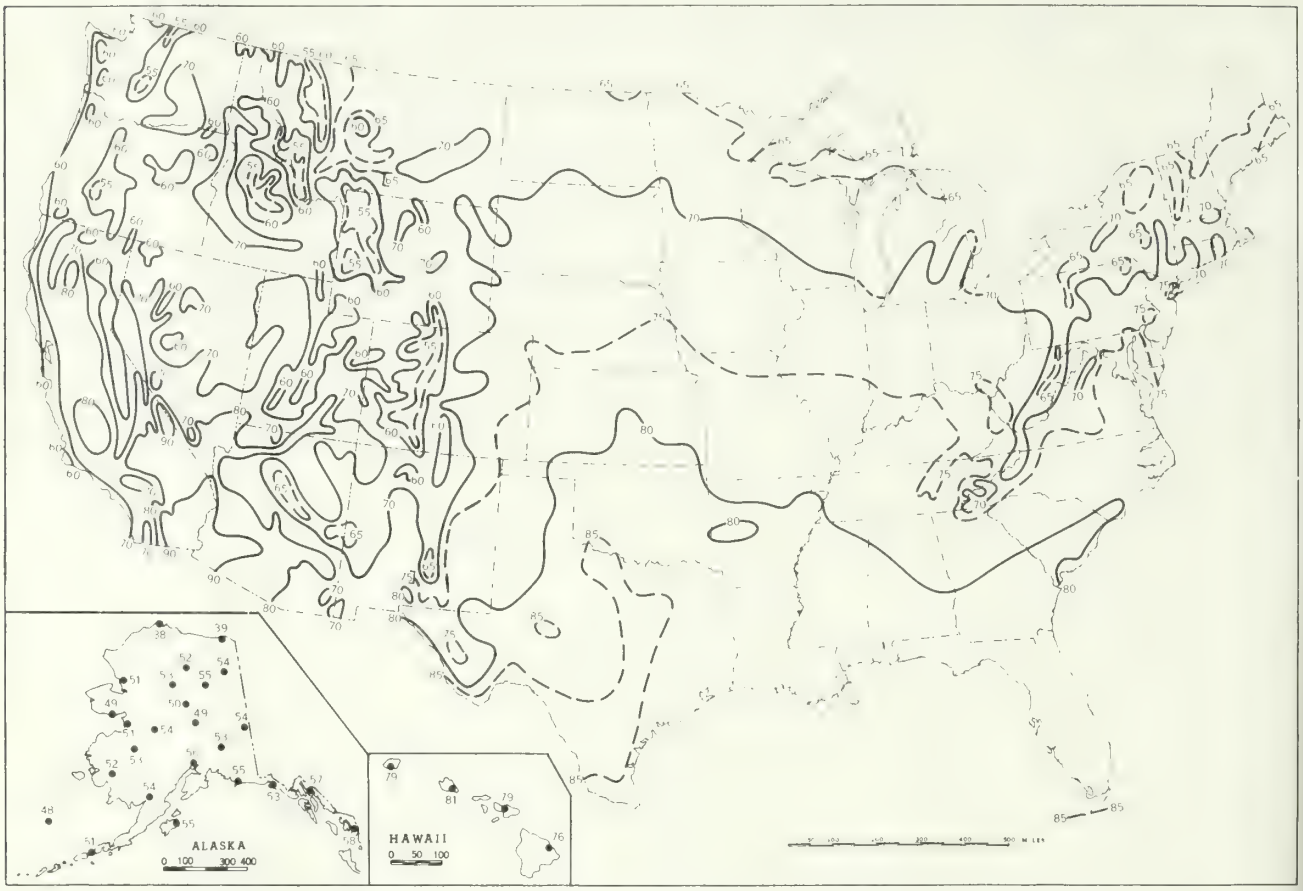
NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded 2 9 9) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code [illegible]s designates the type of measurement made.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), August.



B. Temperature Departure from 30 - Year Mean (°F 1941-70), August 1976

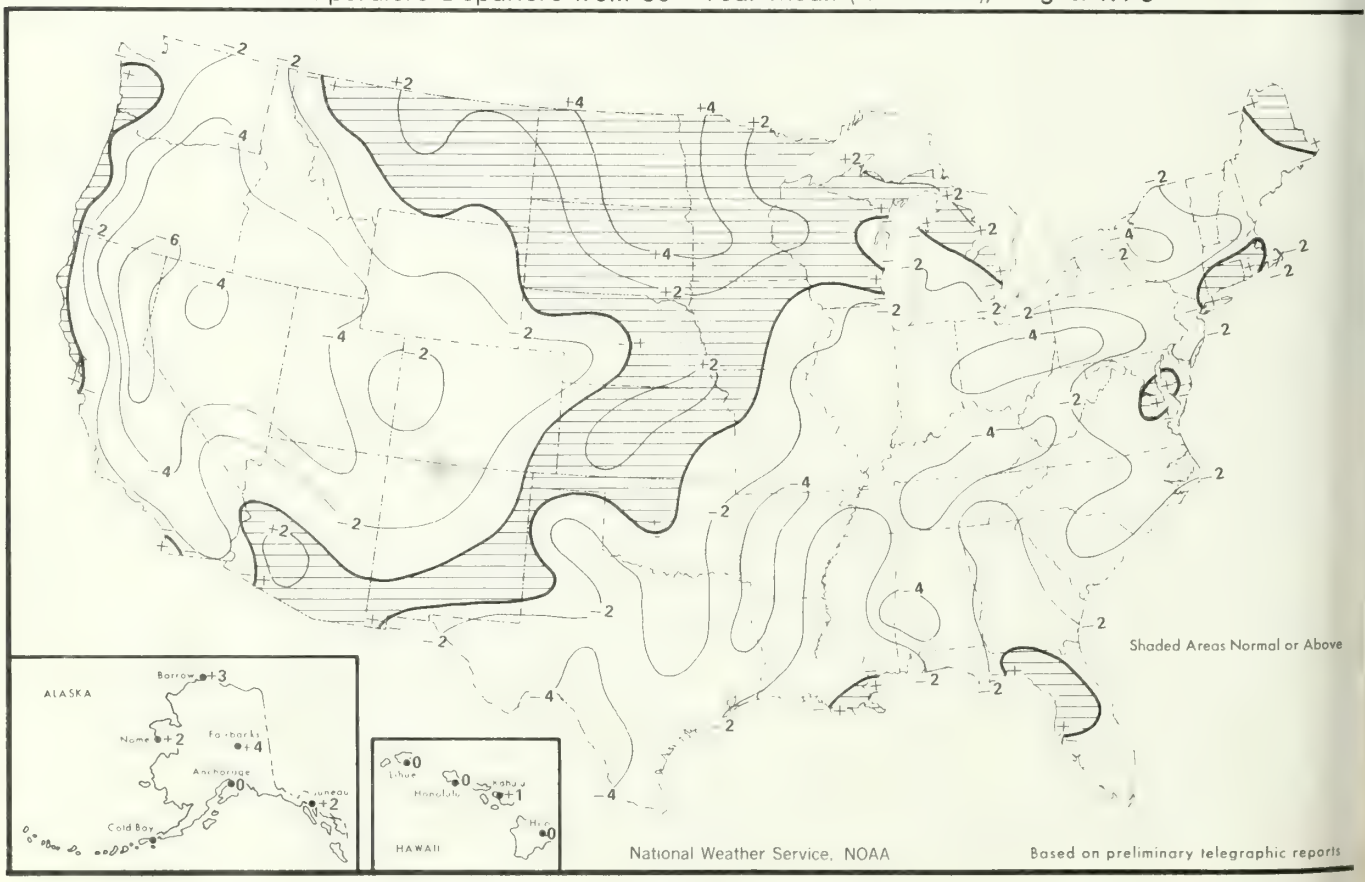
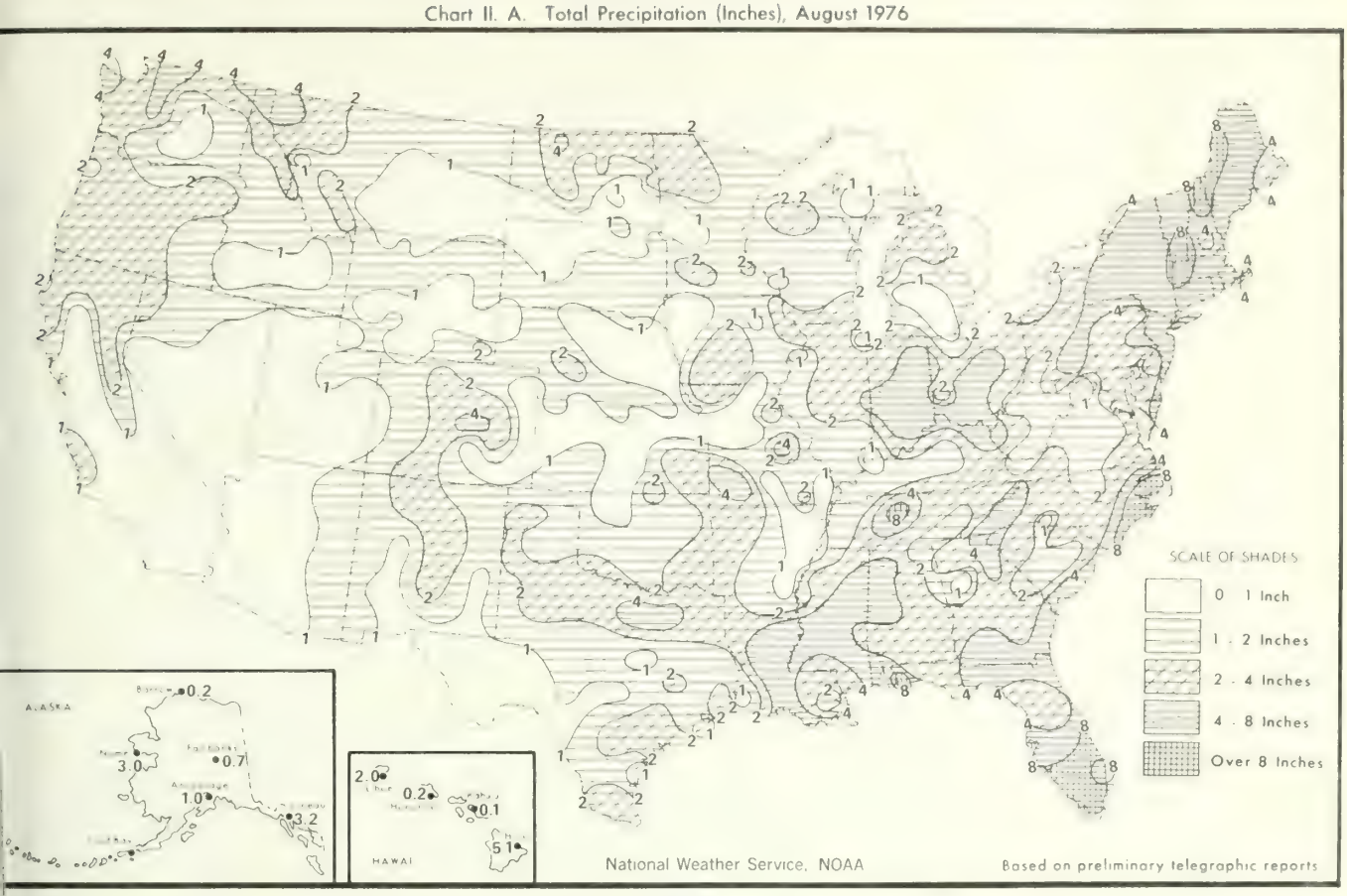


Chart II. A. Total Precipitation (Inches), August 1976



B. Percentage of Normal Precipitation, August 1976

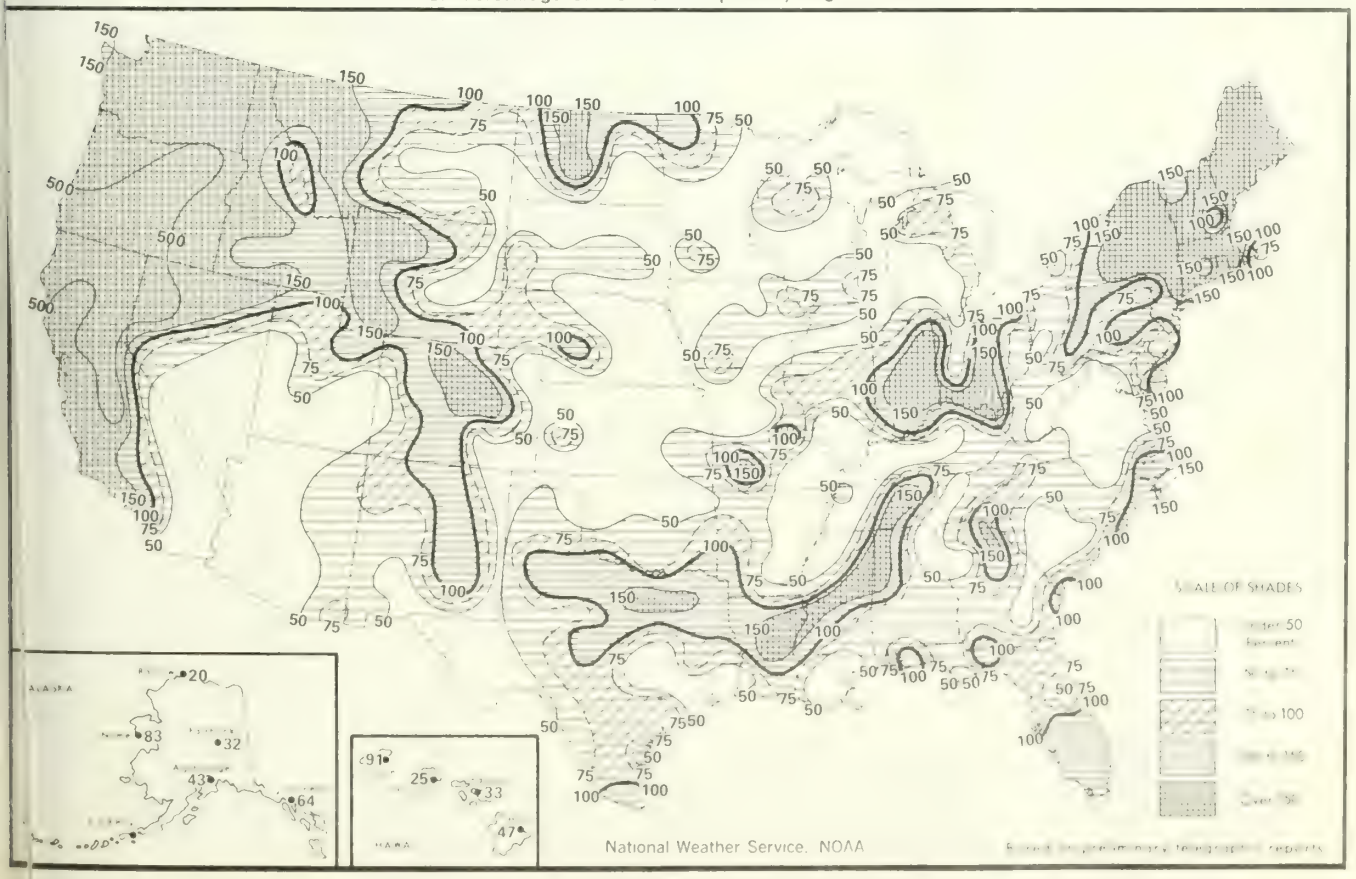
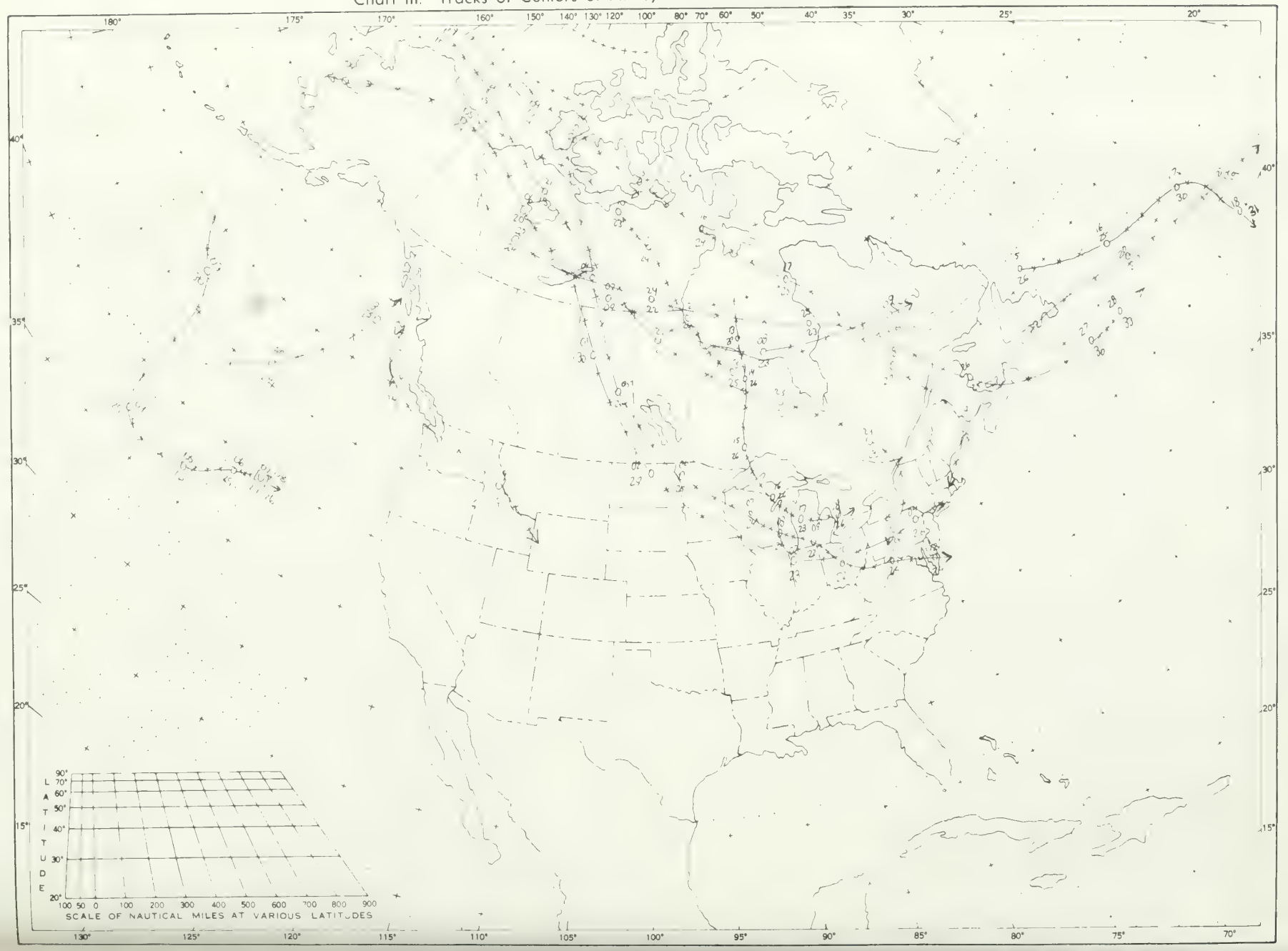
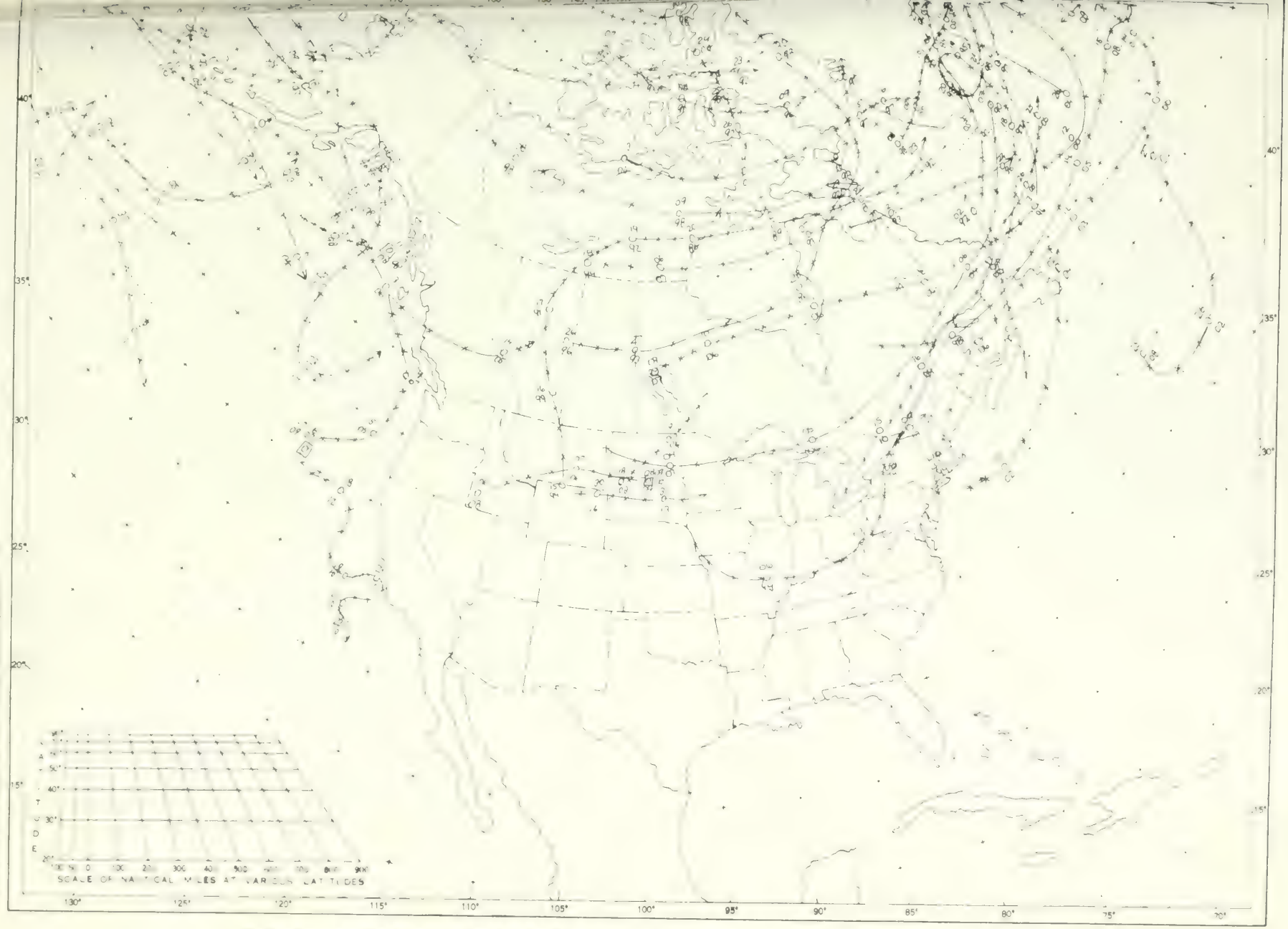


Chart III. Tracks of Centers of Anticyclones at Sea Level, August 1976





Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. X's indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

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SEPTEMBER 1976 VOLUME 27 NUMBER 9

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

"I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND IS COMPILED FROM INFORMATION RECEIVED AT THE NATIONAL CLIMATIC CENTER, ASHEVILLE, NORTH CAROLINA 28801."

Edward B. Mitchell

DIRECTOR
NATIONAL CLIMATIC CENTER

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

SEPTEMBER 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

HIGHLIGHTS: The drought in the northern Plains continued and spread eastward to the northern and central Great Lakes area, and southward into Missouri. Although southeastern South Dakota, southwestern Minnesota, and eastern Nebraska listed near normal rain for the month, the warm, dry area felt only limited relief in a few places. Parts of Wisconsin had only one-fourth the normal amount of rain, while Missouri received only one-third of normal. Unseasonable rain in California helped replenish that area's water supply. Although the month was warmer than normal in the northern Plains, a cold outbreak in the last week brought frost to some places.

Warm moist air from the Gulf of Mexico collided with cooler air in the southern States to produce some heavy rain during the first week of the month. Over 2 inches fell in a large central Texas area, while small areas around Houston and between Wichita Falls and Fort Worth recorded over 5 inches of rain. Mississippi, Alabama, and most of Florida also recorded more than 2 inches.

Thunderstorm activity reached from the Texas coast all the way to Nebraska where golf ball sized hail fell at Axtell. More severe weather occurred from the mid-South into the Ohio River Valley. Generally cooler than normal temperatures prevailed in the South and East, while warmer readings persisted in the West. From central Tennessee to New England, the temperature averaged as much as 6° below normal. New England and central Pennsylvania reported frost. In the West, some readings averaged as much as 9° above normal. Approaching mid-month, the warmest area shifted to the northern Plains. The hot days added to the problems created by the severe to extreme drought. The rest of the Nation, except for the West Coast, recorded below normal temperatures.

Nearly all sections received some rain during the second week. The largest rainfall occurred over southern California, when tropical storm Kathleen moved northward over Baja California. Over 2 inches of rain were common in southern California. Some locations measured more than 5 inches. Although the excessive and unseasonable rain caused some problems, it did help replenish the low water supplies. Elsewhere, thundershowers extended from Texas into eastern South Dakota, where the week's total rain came to nearly 1 inch.

At mid-month, precipitation concentrated over northeastern Texas and along the East Coast. Thunderstorm activity deluged northeast Texas and caused extensive flooding. The downpours extended into southeastern Oklahoma with 2-inch totals for the week. A low pressure system brought heavy rain and high winds to the southeastern sector of the Nation early in the week. The system then moved northward and provided much needed rain to most of the eastern section of the Nation. Temperatures warmed over most of the U. S., except in the Southeast and the Southwest, where below normal temperatures prevailed.

Precipitation was again widespread over most of the country during the last ten days. Showers reached northward into eastern South Dakota but did little to relieve the drought. Southern Iowa and northern Missouri received an accumulation of over 2 inches. Over 5 inches of rain deluged the Houston, TX, area, for the second time during the month. Cool air moved southward through the Plains and spread eastward. Frost formed over South Dakota.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Le
		°F			°F			In.		In
Alabama	Whatley	95	20	2 Stations	58	25	Falkville 1 E	8.10	Talladega	
Alaska	Annette WSO AP	79	20	Tok	-4	30	Mac Leod Harbor	43.90	Barter Island WSO AP	
Arizona	Willow Beach	113	1	Fort Valley	21	18	Kofa Mountains	7.55	Yuma WSO AP	
Arkansas	Ozark	96	5	Gilbert	34	11	Stamps	8.52	Salem 2 NNE	
California	Death Valley	119	1	White Mountain 2	18	28	Mt San Jacinto W S Park	12.11	Dunnigan	
Colorado	2 Stations	102	5	Spicer	10	28	Lakewood	6.87	Julesburg	
Connecticut	Hartford WSO AP	88	14	Hautboy Hill Farm	27	29	Bulls Bridge Dam	4.18	New Haven Airport	1
Delaware	2 Stations	92	14	2 Stations	35	23	Milford 2 WSW	6.80	Georgetown 5 SW	1
Florida	3 Stations	96	29	Smith Creek	47	11	Fernandina Beach	15.07	Steinhatchee 6 ENE	1
Georgia	Waycross 4 NE	9[illegible]	9	Blairsville Exp. Station	1[illegible]	23	Sapelo Island	13.75	Atlanta WSO AP	
Hawaii	4 Stations	92	27	Mauna Loa Slope Obs.	32	6	Mount Waialeale 1047	18.10	7 Stations	
Idaho	Swan Falls Power House	105	2	5 Stations	19	8	Island Park Dam	3.33	Coeur D'Alene 1 E	
Illinois	Waterloo	96	5	Mount Carroll	23	24	Hennepin Power Plant	4.90	Stockton	
Indiana	[illegible]ary	93	8	Wheatfield 2 NNW	29	24	Berne	5.68	Muncie Ball State Univ.	1
Iowa	Rock Rapids	104	7	Elkader 5 SSW	22	24	Sibley	3.88	Ames 8 WSW	
Kansas	Hunter	109	5	Atwood	25	28	Quinter	8.89	Bonner Springs	
Kentucky	Gilbertsville Ky Dam	91	8	Cyntiana 2	33	22	Lloyd Greenup Dam	7.82	Fords Ferry Dam 50	1
Louisiana	2 Stations	98	3	2 Stations	44	30	Rockefeller Wildlife Refuge	7.98	Springville Fire Tower	
Maine	3 Stations	86	15	2 Stations	25	25	Brassua Dam	4.20	Belfast	1
Maryland	Baltimore WSO CI	95	8	Oakland 1 SE	31	22	Towson	8.56	Vienna	2
Massachusetts	Chester 2	90	11	Chester 2	22	25	Winchendon 2	4.15	Middleboro	
Michigan	2 Stations	99	9	Stambaugh 1 S	18	28	Willis 5 SSW	1.81	Beechwood 7 WNW	
Minnesota	Luverne	104	6	Tower 3 S	14	25	Owatonna	3.21	High Landing 2 NW	
Mississippi	3 Stations	95	27	Batesville 2 SW	40	12	Pascagoula 2 ENE	13.60	Greenwood	
Missouri	5 Stations	97	5	Berryman 6 NW	29	11	Anderson	5.35	Festus 2 NW	
Montana	Nashua 1 NW	107	6	Wisdom	15	9	Lakeview	5.01	Whitewater	
Nebraska	3 Stations	105	6	Brownlee	15	28	Anselmo	6.31	2 Stations	
Nevada	Sunrise Manr Las Vegas	114	1	Mountain City Rng. Sta.	21	8	North Fork 7 NW	4.20	Lahontan Dam	
New Hampshire	Concord WSO AP	89	14	Mount Washington	21	29	Mount Washington	9.65	Peterboro 2 S	1
New Jersey	Burlington	94	13	Chatsworth	30	23	Oak Ridge Reservoir	6.51	Bound Brook 2 W	1
New Mexico	San Jon	98	3	Red River	24	29	Carlsbad Caverns	6.40	Villanueva	
New York	New York Laurel Hill	94	15	Old Forge	20	29	Hooker 4 N	7.19	Holbrook	1
North Carolina	6 Stations	94	10	Celo 2 S	29	23	Cape Hatteras WSO	8.58	High Point	1
North Dakota	Alexander 18 SW	107	7	Wishek	15	23	Richardton Abbey	3.48	Forbes 9 NNW	
Ohio	Toledo Blade	97	9	Mountpelier 1 WSW	28	25	Portsmouth	10.11	Huntsville 3 N	
Oklahoma	Alva	105	4	Hooker 2 SW	34	28	Hollis	8.82	Pontotoc	
Oregon	Juntura 9 ENE	104	1	Fremont	18	7	Mason Dam	2.44	Wilson	
Pennsylvania	Philadelphia Drexel Univ.	93	13	Austinburg 2 W	23	25	Zerbey Airport	7.21	Conshohocken	1
Puerto Rico	Magueyes Island	97	3	Adjuntas Substation	50	4	Pico Del Este	17.61	Bayaney	1
Rhode Island	Kingston	89	14	Kingston	32	29	North Foster 1 E	3.23	Providence WSO AP	1
South Carolina	Edgefield 2 NE	99	1	2 Stations	41	23	Bamberg	9.04	Pee Dee	
South Dakota	Gettysburg 14 W	109	6	Cottonwood 2 E	18	28	White Lake	3.76	Elm Springs 3 ESE	
Tennessee	4 Stations	99	9	Tazewell	32	21	Covington 1 W	7.02	Dyersburg FAA AP	1
Texas	Catarina	103	5	3 Stations	36	30	Ennis	19.45	Andrews	
Utah	Saint George	105	1	2 Stations	21	9	Aneth Plant	2.47	Black Rock	
Vermont	Vernon	86	15	Mount Mansfield	24	24	Mount Mansfield	9.80	Bellows Falls	2
Virginia	2 Stations	97	9	Floyd 2 NE	28	25	Warsaw 2 NW	9.00	Free Union	2
Virgin Islands	Frenchmans Bay	93	24	Annaly	68	15	Fountain	7.74	Granard	2
Washington	Lower Monumental Dam	103	1	Chesaw 4 NNW	26	8	Palmer 3 ESE	3.80	10 Stations	
West Virginia	Moorefield 2 SSE	95	8	Seneca State Forest	27	23	Madison	7.10	Cairo 3 S	1
Wisconsin	2 Stations	100	7	Jump River 5 E	14	28	Baldwin 1 SW	2.32	Eau Claire FAA AP	
Wyoming	Colony	102	6	Lamar Ranger Station	10	8	Ten Sleep 4 NE	2.63	Church Buttes Gas Plant	

CLIMATOLOGICAL DATA

METRIC UNITS

SEPTEMBER 19[illegible]

State and Station	Elevation ground	Pressure		Temperature											Average relative humidity	Precipitation							Wind				No. of days sunrise to sunset			Sky cover tenths sunrise to sunset	Possible sunshine
												No. of days							No. of days		Snow Ice pellets				Fastest mile (1.6 kilometers)							
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Resultant speed	Resultant direction	Speed	Direction	Date	Clear 0.3	Partly cloudy 4.7	Cloudy 8.10		
	m	mb	mb	°C	°C	°C	°C	°C		°C				°C	%	mm	mm	mm			mm	mm	m/s		m/s							
[illegible]	180	994.5	[illegible]	27.8	18.4	22.6	-1.1	34.1	25	8.3	11			17.8	68	125	39	41					4.0	4	8.9	SW	27					
[illegible]	14	994.[illegible]	[illegible]	26.2	14.7	20.4	-2.3	[illegible]	4+	6.7	11	0	0	15.6	78	188	14	55	11	6		0	7.7	7	9.4	36	9	14	5	9	13	6.1	12
[illegible]	84	[illegible]	[illegible]	25.1	10.1	17.6	-1.1	33.1	2	13.9	11	0	0	14.0	74	82	70	22	13	9		0	8.8	7	11.3	34	4	8	9	13	8.0	
[illegible]	54	[illegible]	17.4.4	28.6	18.1	23.5	-0.9	31.7	28+	10.6	23	0	0	17.8	75	71	+41	54	12	4		0	8.8	6	17.4	[illegible]	3	7	[illegible]	12	5.7	12
[illegible]												8																				
[illegible]	35	999.[illegible]	[illegible]	31.[illegible]	5.[illegible]	18.6	-1.4	35.6	24+	-0.6	3	0	1	3.9	74	80	24	9	4					1.0	18	11.2	19	22					83
[illegible]	36	998.8	[illegible]	15.6	0.6	13.[illegible]	[illegible]	24.[illegible]	20	5.[illegible]	3	2	0	9.4	85	234	[illegible]	91	6	0					13.4	[illegible]	13	6	2	8	8.6	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.[illegible]	0.[illegible]	[illegible]	[illegible]	[illegible]	-7.[illegible]	3	0	25	0.6	64	18	[illegible]	8	3	[illegible]	26	3.[illegible]	7	13.[illegible]	[illegible]	29	[illegible]	[illegible]	[illegible]	27	9.[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	22	[illegible]	[illegible]	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	38	997.[illegible]	[illegible]	[illegible]	[illegible]	7.[illegible]	[illegible]	[illegible]	[illegible]	-4.7	19+	0	2	4.[illegible]	84	32	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible]	27+	[illegible]	[illegible]	34	9.3	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.[illegible]	2.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	6	2.8	79	43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	28	999.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.[illegible]	87	51	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	144	997.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.6	[illegible]	14	-5.[illegible]	[illegible]	[illegible]	10	1.1	86	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	474	[illegible]	[illegible]	[illegible]	[illegible]	6.3	-.2	[illegible]	24+	-6.[illegible]	6	0	13			3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	16	99[illegible]	[illegible]	[illegible]	[illegible]	8.8	[illegible]	16.[illegible]	26	-0.6	3+	0	3			24	[illegible]	23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13.[illegible]	[illegible]	28	[illegible]	[illegible]	[illegible]	8.[illegible]	
[illegible]	[illegible]	1011.8	1011.[illegible]	[illegible]	[illegible]	[illegible]	.8	[illegible]	24+	[illegible].1	12	0	0	8.3	80	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15.0	[illegible]	28+	[illegible]	[illegible]	[illegible]	8.[illegible]	33
[illegible]	[illegible]	997.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	+4.4	30	0	7	3.9	10	47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	994.[illegible]	[illegible]	[illegible]	[illegible]	9.4	-.6	[illegible]	4+	0.0	28	0	0	6.[illegible]	86	36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.5	[illegible]	17	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0	3.9	81	34	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.[illegible]	.2	[illegible]	25+	-7.2	3	0	13	[illegible]	7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9.[illegible]	[illegible]	28+	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.3	1.7	[illegible]	24+	-1.7	4+	0	2	[illegible]	64	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-2.[illegible]	[illegible]	0	4			37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-6.[illegible]	[illegible]	0	17			4[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	113	998.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-.2	[illegible]	[illegible]	-0.6	[illegible]	0	8			72	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-1.[illegible]	[illegible]	0	3			4[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0			22	[illegible]	[illegible]							[illegible]	[illegible]	22					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	2	[illegible]	[illegible]	4[illegible]	[illegible]	45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.[illegible]	[illegible]	27	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13.[illegible]	-.6	28.[illegible]	[illegible]	[illegible]	18	0	0	[illegible]	52	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.[illegible]	[illegible]	23	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	18.3	-.4	28.[illegible]	[illegible]	1[illegible]	20	20	0	12.[illegible]	44	43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CLIMATOLOGICAL DATA

METRIC UNITS

SEPTEMBER 1976

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days Max 32.2 °C or above	Temperature: No of days Min 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days 25 mm or more	Precipitation: No of days With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No of days (sunrise to sunset) Clear, 0-3	No of days (sunrise to sunset) Partly cloudy, 4-7	No of days (sunrise to sunset) Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
COLORADO	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m s		m s							%
COLORADO SPRINGS	1873	815.1	1017.4	21.7	8.7	15.2	-0.9	31.7	4+	0.6	28	0	0	5.6	63	1.9	-21	29	1	6	T	T	1.3	5	13.9	21	14	12	6	12	5.4	
DENVER	1611	840.2	1018.5	23.5	9.6	16.6	-0.6	32.	5+	2.2	28	3	0	5.0	55	4.8	-1.3	11	1	5	0	0	0.8	17	15.2	NW	14	11	4	15	5.8	65
GRAND JUNCTION	1476	854.0	1014.4	27.1	11.6	19.4	-0.2	34.4	5+	4.4	28	4	0	3.9	43	1.7	-2.4	8	1	5	0	0	0.8	11	11.2	N	11	13	11	6	4.6	75
PUEBLO	1429	858.1	1015.9	25.4	9.0	17.2	-1.3	35.	5	2.2	29	4	0	8.3	62	4.0	4.0	35	1	3	0	0	1.7	6	14.3	S	6	11	7	12	5.6	83
CONNECTICUT																																
BRIDGEPORT	2	1015.6	1016.2	23.1	13.9	18.6	-0.6	28.3	14	6.7	29	0	0	15.0	78	99	+45	11	1	0	0	0	1.7	26	13.9	21	23	7	13	10	6.2	
HARTFORD	52	1009.1	1015.7	23.8	9.9	16.9	-0.2	31.1	14	2.2	29+	0	0	12.2	76	85	+25	22	1	0	0	0	1.1	23	9.8	NW	6	8	9	13	6.3	61
DELAWARE																																
WILMINGTON	29	1013.5	1016.7	25.2	13.4	19.4	-0.6	33.9	13+	6.1	23	2	0	13.3	70	54	-33	2	1	.	0	0	1.7	28	8.0	E	30+	10	8	12	5.4	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1005.1	1016.7	25.7	10.0	18.1	-1.2	33.3	8	1.7	23	3	0	12.2	72	95	32	43	1	1	0	0	0.8	17	9.4	NE	16	10	9	11	5.8	
WASHINGTON NATIONAL	3	1014.6	1016.9	26.6	16.6	21.6	-0.1	33.3	8	9.4	23	3	0	15.6	73	184	+75	130	1	1	0	0	0.6	26	11.2	NE	30+	6	9	12	5.5	59
FLORIDA																																
APALACHICOLA	6	1015.2	1015.9	29.1	20.4	24.8	-1.1	33.2	5	13.9	15	1	0	21.1	81	110	-114	29	1	13	0	0	1.5	9	8.5	SE	12	3	9	14	6.3	52
DAYTONA BEACH	9	1014.2	1015.7	30.1	21.4	25.7	-0.7	33.8	28	17.2	16+	3	0	21.1	79	130	-51	80	13	13	0	0	0.9	12	10.3	S	13+	6	12	12	6.5	
FORT MYERS	5	1015.2	1015.4	30.6	21.0	26.0	-1.3	34.4	1	20.6	27+	2	0	21.7	82	224	2	49	15	15	0	0	0.5	9	10.3	18	1	2	15	14	7.2	
JACKSONVILLE	8	1015.2	1015.1	29.6	20.2	24.9	-0.8	32.8	2	16.7	16	2	0	21.1	84	217	19	103	12	8	0	0	0.2	11	18.8	NW	3	3	11	16	7.4	60
KEY WEST	1	1014.6	1015.2	31.2	25.6	28.6	0.2	32.2	16+	23.9	19+	5	0	24.4	79	84	-101	25	7	16	0	0	1.7	12	12.5	E	17	6	17	13	7.1	85
LAKELAND	65			31.9	21.4	26.7	-0.1	35.0	28	18.3	16+	15	0			145	-6	43	14		0	0						4	15	11	6.1	65
MIAMI	2	1015.6	1015.6	29.8	23.9	26.9	-0.7	31.1	21+	21.7	19	0	0	23.9	85	197	-25	56	17	17	0	0	1.3	11	10.3	28	23	1	15	14	7.2	
ORLANDO MCO AFB	29	1011.9	1016.7	31.6	22.2	26.9	0.2	33.0	28	18.9	15	15	0	22.2	81	140	+34	38	16	16	0	0	0.5	16	10.3	3	18+	4	14	12	6.7	
PENSACOLA	34	1011.9	1016.1	29.1	20.2	24.7	-1.3	31.1	26+	15.6	15+	0	0	19.4	75	122	-45	61	11	7	0	0	0.8	5	10.3	32	29+	8	11	11	5.5	
TALLAHASSEE	17	1013.9	1016.1	30.7	19.2	24.9	-0.7	34.4	3	12.6	11	10	0	20.0	78	71	-54	42	11	8	0	0	0.8	4	10.3	23	29+	6	10	14	6.8	
TAMPA	6	1015.2	1015.6	30.6	21.9	26.3	-0.8	33.3	1	17.8	16	4	0	21.1	77	152	-8	34	16	16	0	0	0.4	9	13.9	30	30	4	8	18	7.2	60
WEST PALM BEACH	6	1015.2	1016.0	30.9	22.4	26.7	-0.8	33.3	10	21.1	21+	4	0	21.7	77	197	-54	8	15	14	0	0	1.2	11	11.2	28	14	1	10	19	7.5	
GEORGIA																																
ATHENS	244	987.8	1016.5	28.9	15.8	21.8	-1.7	30.6	2	9.4	23+	0	0	15.6	73	74	-18	32	10	4	0	0	0.4	36	7.6	29	30+	6	10	14	6.4	
ATLANTA	308	980.4	1016.6	26.4	15.6	21.0	-1.4	29.4	6	8.9	11	0	0	15.0	74	13	-62	5	6	3	0	0	0.5	36	8.0	28	20+	6	9	15	6.7	53
AUGUSTA	41	1010.8	1016.3	28.3	16.5	22.4	-1.0	32.7	2	8.9	12	2	0	17.2	70	155	73	77	11	4	0	0	0.3	33	9.4	35	14	6	6	18	6.0	
COLUMBUS	117	1002.4		28.9	18.0	23.4	-0.7	31.7	26	10.6	23	0	0	18.3	78	126	33	63	14	3	0	0	1.0	4	8.0	34	15+	6	8	16	6.3	
MACON	104	1003.7	1016.6	29.7	17.7	23.7	-0.6	33.3	4	8.9	11	6	0	18.9	79	17	-92	55	14	6	0	0	0.8	36	12.5	S	26	5	9	16	6.7	58
ROME	194			27.9	14.7	21.3	-1.0	31.1	27	4.4	23	0	0			53	+46	36	3		0	0										
SAVANNAH	14	1014.6	1016.5	28.2	19.4	23.8	-0.7	30.2	20+	13.9	12	2	0	18.9	78	256	114	143	11	7	0	0	0.3	5	10.3	E	14	3	11	16	7.4	46
HAWAII																																
HILO	8	1013.2	1014.3	29.4	20.4	24.9	0.7	30.2	7	17.2	20	1	0	20.6	79	135	+54	44	2	0	0	0	0.4	32	10.3	SE	7	4	15	11	6.2	37
HONOLULU	2	1013.9	1014.2	31.3	22.8	27.1	0.2	32.2	24+	20.0	30	7	0	17.2	56	8	-9	4	1	0	0	0	3.8	5	11.6	NE	15	6	20	4	5.3	66
KAHULUI	15	1011.5	1013.6	30.9	21.1	26.1	0.3	33.3	6	17.8	20+	7	0			4	-3	1	8	0	0	0	4.6	4	13.0	NE	11	13	15	2	4.2	78
LIHUE	31	1010.5	1013.6	28.9	22.8	25.8	-0.2	30.6	25	19.4	30	0	0	21.7	78	44	-3	8	20	0	0	0	4.4	5	10.7	NE	9	8	20	2	4.8	77
IDAHO																																
BOISE	869	916.0	1015.3	25.3	10.4	17.8	0.6	37.4	1	1.1	7	3	0	6.7	56	56	43	44	7	4	0	0	0.7	14	17.0	SE	5	16	7	7	3.8	77
LEWISTON	431			28.5	12.6	20.6	3.2	37.8	1	6.1	8	3	0			8	-13	8	2		0	0			14.3Y		6	18	3	9	3.9	
POCATELLO	1359	864.5	1015.0	26.2	6.1	16.2	0.9	36.7	5	-2.2	9	4	1	3.3	49	16	-4	5	3	1	0	0	1.0	33	15.6	S	11	14	10	6	4.0	84
ILLINOIS																																
CAIRO	96			27.0	15.0	21.4	-0.8	34.1	8+	8.9	24	0	0			31	-57	18	4		0	0			10.7	SW	26					71
CHICAGO O HARE	201	993.2	1017.4	24.1	10.0	17.1	-0.6	32.2	8	1.1	24+	1	0	9.4	61	39	-39	23	5	2	0	0	1.0	28	11.2	34	23+	15	8	7	4.7	
CHICAGO MIDWAY	185	995.3	1017.8	24.1	12.1	18.1	-0.8	31.7	8	3.3	24	0	0	9.4	61	55	-21	36	4	0	0	0	0.8	27	10.7	S	22+	14	7	9	4.5	69
MOLINE	177	996.6	1017.9	24.6	9.8	17.2	-0.9	32.2	6	1.1	22	1	0	8.9	61	48	+50	40	5	1	0	0	0.3	24	9.8	SW	22+	14	5	11	5.0	63
PEORIA	199	994.2	1016.1	24.6	10.2	17.4	-1.2	31.7	8	1.7	22	0	0	10.0	65	48	+45	41	5	1	0	0	0.0	28	9.4	NW	9	13	7	10	5.0	65
ROCKFORD	221	991.2	1018.2	23.4	7.7	15.6	-1.8	31.7	8+	-2.2	24	0	2	7.2	61	35	+64	15	4	2	0	0	0.5	30	9.8	22	3	14	8	8	4.6	
SPRINGFIELD	179	995.9	1017.9	26.1	10.8	18.4	-1.1	33.9	8	2.8	22	3	0	10.6	64	56	-27	37	4	0	0	0	0.2	21	10.3	NW	21	14	8	8	4.6	71
INDIANA																																
EVANSVILLE	116	1003.7	1017.7	26.6	12.4	19.5	-1.1	31.1	8	3.9	22	0	0	12.2	67	84	12	44	8	2	0	0	0.3	35	8.0	NW	21+	13	9	8	4.5	68
FORT WAYNE	241	987.8	1017.7	23.8	9.6	16.7	-1.4	32.2	8	1.7	22	1	0	10.0	69	56	-9	31	8	0	0	0	1.2	29	11.2	NW	9	14	6	10	4.7	67

CLIMATOLOGICAL DATA

METRIC UNITS

SEPTEMBER 1975

State and Station	Elevation (ground)	Pressure		Temperature										Average relative humidity	Precipitation							Wind				No. of days sunrise to sunset			Sky cover, tenths (sunrise to sunset)	Possible sunshine
											No. of days						No. of days		Snow, Ice pellets		Resultant speed	Resultant direction	Fastest mile (1.6 kilometers)							
		Station ⊙	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground		Speed	Direction	Date	Clear 0.3	Partly cloudy 4.7	Cloudy 8.10		
	m	mb	mb	°C	°C	°C	°C	°C		°C				°C	%	mm	mm	mm			mm	mm	m/s							%
[illegible]	24	949.2	1014.2	24.5	10.6	17.6	-1.5	35.[illegible]	[illegible]	2.0	22	[illegible]	[illegible]	12.7	78	51	-8.3	25	4	[illegible]	0	[illegible]	14.8	04	11.[illegible]	[illegible]	12	6	13	8.2	64
[illegible]	934	942.5	[illegible]	22.6	8.0	15.3	-1.4	31.7	8	6.2	24+	0	[illegible]	13.5	72	80	7	21	[illegible]	[illegible]	0	[illegible]	11.2	26	20.7	[illegible]	23+	12	5	13	8.6	
[illegible]																																
[illegible]	311			24.1	10.3	17.2	-1.1	31.1	6	5.6	10	0	0	10.6	65	63	-0.3	26	[illegible]	[illegible]	[illegible]	[illegible]	11.7	24	9.4	[illegible]	4	13	6	11	6.4	
[illegible]	984	988.1	[illegible]	20.3	10.2	15.2	-0.8	32.1	7+	0.7	30+	2	0	8.9	57	36	-15.1	11	3	2	[illegible]	[illegible]	10.5	11	14.8	[illegible]	6	11	8	11	8.2	70
[illegible]	223			21.9	8.8	15.4	-2.1	31.[illegible]	7	1.1	24	0	[illegible]	[illegible]	[illegible]	22	-8.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	344	977.7	1041.3	28.3	10.4	17.9	-0.4	34.[illegible]	5	1.7	29	3	0	9.4	64	5	-21.[illegible]	32	[illegible]	[illegible]	[illegible]	[illegible]	8.8	24	12.5	[illegible]	19	15	5	10	6.4	76
[illegible]	258	985.5	1041.[illegible]	[illegible].3	7.[illegible]	15.9	-1.5	33.[illegible]	7	-[illegible].[illegible]	24	2	1	7.2	59	32	-[illegible].[illegible]	2	[illegible]	[illegible]	[illegible]	[illegible]	6.5	24	11.3	[illegible]	6	[illegible]	[illegible]	6	6.4	
[illegible]																																
[illegible]	488	[illegible].1	10[illegible].3	27.5	14.4	[illegible].6	0.8	[illegible]	[illegible]	6.2	28	7	[illegible]	[illegible].6	57	15	[illegible]	45	[illegible]	[illegible]	0	[illegible]	4.6	[illegible]	12.5	[illegible]	8	13	7	10	6.5	83
[illegible]	787	9[illegible].[illegible]	10[illegible].[illegible]	28.2	13.8	[illegible].[illegible]	0.7	37.[illegible]	7+	1.7	28	8	[illegible]	11.1	60	77	-[illegible]	46	[illegible]	[illegible]	0	[illegible]	4.3	17	14.3	[illegible]	27	8	14	8	6.5	72
[illegible]	1016	88[illegible].3	[illegible].[illegible]	[illegible].[illegible]	9.6	17.2	-0.8	[illegible].[illegible]	5	-[illegible].[illegible]	28	4	2	9.4	67	50	-[illegible].7	25	4	6	0	[illegible]	4.7	[illegible]	13.4	[illegible]	6	13	[illegible]	16	5.6	
[illegible]	257	980.4	[illegible].[illegible]	[illegible].7	[illegible].[illegible]	[illegible].6	[illegible].4	36.[illegible]	4	[illegible].2	10	8	[illegible]	12.2	63	23	-[illegible].6	23	3	[illegible]	[illegible]	[illegible]	4.8	[illegible]	11.2	[illegible]	19	12	10	8	5.6	73
[illegible]	6[illegible]	980.2	[illegible].[illegible]	27.[illegible]	14.9	[illegible].[illegible]	-0.4	34.[illegible]	5+	3.3	29	6	[illegible]	12.8	64	51	-[illegible].2	14	4	[illegible]	[illegible]	[illegible]	4.6	[illegible]	13.9	S	[illegible]	[illegible]	[illegible]	11	5.2	73
[illegible]																																
[illegible]	761	980.[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].7	7.6	-2.3	[illegible].[illegible]	8	[illegible].7	22	0	0	[illegible].7	76	5	[illegible]	10	[illegible]	[illegible]	[illegible]	[illegible]	3.6	27	[illegible].7	[illegible]	9	[illegible]	8	11	5.9	
[illegible]	744	[illegible].8	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	17.8	-2.5	[illegible].[illegible]	[illegible]	3.[illegible]	22	0	0	12.8	74	107	40	9	[illegible]	[illegible]	[illegible]	[illegible]	4.4	[illegible]	[illegible].2	[illegible]	9	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	168	[illegible]	[illegible].[illegible]	[illegible].2	10.[illegible]	9.3	-1.3	30.[illegible]	[illegible]	5.0	22	0	0	[illegible].9	75	70	[illegible]	28	[illegible]	3	[illegible]	[illegible]	[illegible].1	[illegible]	9.4	[illegible]	9	13	8	9	6.[illegible]	71
[illegible]																																
[illegible]	2[illegible]	[illegible].8	[illegible].2	8.[illegible]	[illegible].0	[illegible].4	0.3	34.4	18	[illegible].[illegible]	[illegible]	17	0	18.3	73	35	-[illegible]	19	[illegible]	3	[illegible]	[illegible]	0.8	3	7.6	36	[illegible]	5	[illegible]	9	8.7	
[illegible]	2[illegible]	[illegible].6	[illegible].[illegible]	3[illegible]	[illegible].[illegible]	[illegible].[illegible]	-0.3	[illegible].[illegible]	9+	[illegible].[illegible]	[illegible]	13	0	18.9	74	39	-[illegible].9	19	[illegible]	3	[illegible]	[illegible]	[illegible].[illegible]	[illegible]	9.2	[illegible]	24	[illegible]	[illegible]	9	5.8	
[illegible]	3	[illegible].9	[illegible].[illegible]	[illegible].3	[illegible].[illegible]	[illegible].3	-0.5	[illegible].[illegible]	4+	[illegible].[illegible]	3[illegible]	17	0	18.9	74	51	-[illegible].2	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].9	[illegible]	9.4	[illegible]	28	[illegible]	[illegible]	[illegible]	5.7	
[illegible]	[illegible]	[illegible].4	[illegible].[illegible]	30.[illegible]	[illegible].[illegible]	[illegible].4	-0.2	[illegible].[illegible]	9+	[illegible].[illegible]	12	0	0	20.6	76	4	-[illegible].[illegible]	11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].3	[illegible]	8.9	[illegible]	23	[illegible]	[illegible]	[illegible]	5.0	72
[illegible]	39	[illegible].6	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	3.5	-1.7	33.[illegible]	23+	9.[illegible]	30+	9	0	18.3	79	16	[illegible]	72	[illegible]	[illegible]	[illegible]	[illegible]	0.4	[illegible]	9.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.9	62
[illegible]																																
[illegible]	180	949.8		15.9	5.7	[illegible].8	-1.4	[illegible].[illegible]	14	-[illegible].2	25	0	5			54	-[illegible]	23	[illegible]	[illegible]	[illegible]	[illegible]					4	[illegible]	18	7.5	
[illegible]	13	[illegible].5	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	-0.8	28.[illegible]	14	-[illegible].6	29	0	2	9.4	75	67	-[illegible]	18	[illegible]	2	[illegible]	[illegible]	1.4	04	11.2	5[illegible]	10	12	6	12	8.9	67
[illegible]																																
[illegible]	45	[illegible].2	[illegible].[illegible]	25.5	[illegible].0	9.7	-0.6	33.3	8	6.[illegible]	23	[illegible]	0	13.9	73	174	47	[illegible]	8	[illegible]	[illegible]	[illegible]	4.8	24	[illegible].[illegible]	[illegible]	10	11	7	12	8.4	61
[illegible]																																
[illegible]	192			[illegible].4	11.[illegible]	16.3	-0.6	[illegible].[illegible]	[illegible]	3.9	29	0	0			61	-[illegible]	24	[illegible]	[illegible]					14.6	[illegible]	[illegible]					6[illegible]	
[illegible]	5	[illegible].4	[illegible].[illegible]	13.2	13.[illegible]	18.3	0.2	31.[illegible]	[illegible]	[illegible].8	29	0	0	[illegible].7	69	40	-[illegible]	14	[illegible]	[illegible]			[illegible].2	[illegible]	[illegible].6	[illegible]	23	[illegible]	[illegible]	[illegible]	5.[illegible]	64
[illegible]	[illegible]	979.[illegible]		20.2	[illegible].[illegible]	[illegible].9	-1.2	[illegible].[illegible]	[illegible]	2.2	29+	[illegible]	[illegible]			65	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			9.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.4	
[illegible]																																
[illegible]	21[illegible]	[illegible].3	[illegible].[illegible]	[illegible].8	[illegible].8	[illegible].9	0.4	33.[illegible]	[illegible]	-[illegible].[illegible]	26+	[illegible]	[illegible]	9.4	78	33	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].7	04	12.1	[illegible]	23	[illegible]	[illegible]	[illegible]	5.[illegible]	69
[illegible]	[illegible]	[illegible].[illegible]	[illegible].[illegible]	23.2	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible]	[illegible].[illegible]	[illegible]	[illegible]	[illegible]	[illegible].6	63	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].8	[illegible]	[illegible].3	[illegible]	29+	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	193	992.[illegible]	[illegible].[illegible]	24.1	[illegible].[illegible]	[illegible].7	-0.8	34.[illegible]	[illegible]	[illegible].1	2[illegible]	2	0	9.[illegible]	68	53	34	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].[illegible]	[illegible]	17.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	69
[illegible]	235	988.8	[illegible].[illegible]	22.2	[illegible].5	[illegible].9	-0.2	[illegible].[illegible]	[illegible]	[illegible].6	24	[illegible]	0	9.[illegible]	69	68	[illegible]	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].8	[illegible]	[illegible].7	[illegible]	23	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	238	988.2	[illegible].[illegible]	22.9	[illegible].4	[illegible].7	-1.2	[illegible].[illegible]	[illegible]	-[illegible].7	24	[illegible]	2	[illegible].9	66	31	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].[illegible]	[illegible]	[illegible].5	[illegible]	29	[illegible]	[illegible]	[illegible]	[illegible]	72
[illegible]	35	994.[illegible]	[illegible].[illegible]	19.9	[illegible].3	[illegible].3	-0.8	[illegible].[illegible]	[illegible]	-[illegible].4	24	0	[illegible]	7.8	71	29	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].[illegible]	[illegible]	[illegible].[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	244	985.[illegible]	[illegible].[illegible]	22.[illegible]	[illegible].[illegible]	[illegible].2	-1.3	[illegible].[illegible]	[illegible]	-[illegible].3	24	[illegible]	[illegible]	10.0	75	40	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].8	[illegible]	[illegible].[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	70
[illegible]	[illegible]	[illegible]	[illegible]	[illegible].9	[illegible].[illegible]	[illegible].[illegible]	-0.3	[illegible].[illegible]	[illegible]	[illegible].8	28+	[illegible]	[illegible]			[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].9	[illegible]	[illegible].[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	19	[illegible].2	[illegible].[illegible]	[illegible].4	[illegible].8	[illegible].[illegible]	-1.8	[illegible].[illegible]	[illegible]	-[illegible].[illegible]	28+	[illegible]	[illegible]	10.0	75	27	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].3	[illegible]	[illegible].4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	92[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].8	[illegible].9	[illegible].[illegible]	-0.9	[illegible].[illegible]	[illegible]	-[illegible].[illegible]	25	[illegible]	[illegible]	7.8	78	62	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].4	[illegible]	[illegible].3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]																																
[illegible]	435	[illegible].[illegible]	[illegible].[illegible]	19.8	[illegible].1	[illegible].9	0.5	[illegible].[illegible]	[illegible]	-[illegible].[illegible]	24+	[illegible]	[illegible]	4.4	61	67	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].[illegible]	[illegible]	[illegible].8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].7	[illegible].3	[illegible].8	0.3	[illegible].[illegible]	[illegible]	-[illegible].[illegible]	25	[illegible]	[illegible]	[illegible].6	69	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].[illegible]	[illegible]	[illegible].9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].5	[illegible].[illegible]	[illegible].6	1.0	[illegible].[illegible]	[illegible]	[illegible].[illegible]	24	[illegible]	[illegible]	[illegible].7	56	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].8	[illegible]	[illegible].8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	-0.4	[illegible].[illegible]	[illegible]	-[illegible].6	28+	[illegible]	[illegible]	[illegible].[illegible]	62	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].4	[illegible]	[illegible].[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible].4	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	0.0	[illegible].[illegible]	[illegible]	-[illegible].[illegible]	28	[illegible]	[illegible]			[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].4	[illegible]	[illegible].[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]																																
[illegible]	96	[illegible].7	[illegible].[illegible]	29.6	17.9	[illegible].8	-0.7	[illegible].[illegible]	26	10.6	22+	[illegible]	0	19.4	83	94	2	[illegible]	12	[illegible]	0	[illegible]	[illegible].7	5	8.5	[illegible]	9+	[illegible]	8	12	8.4	58

CLIMATOLOGICAL DATA

METRIC UNITS

SEPTEMBER 1976

State and Station	Elevation (ground	Pressure: Station O	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0.3	No. of days (sunrise to sunset): Partly cloudy, 4.7	No. of days (sunrise to sunset): Cloudy, 8.10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
MISSISSIPPI																																	
MERIDIAN	88	1005.8	1010.7	28.8	15.6	22.2	-1.8	31.7	3	7.8	11	0	0	17.8	89	47	-45	13	2	4	0	0	3.4	2	8.0	33	1	9	5	15	8.1	
MISSOURI																																	
COLUMBIA REGIONAL	270	985.4	1017.5	27.2	12.5	19.9	-0.3	33.9	4	5.0	30	4	0	10.0	58	12	-100	6	3	1	0	0	0.4	11	13.0	N	9	11	10	9	8.2	66
KANSAS CITY	319	980.7	1016.9	27.1	13.9	20.6	0.1	33.3	4	5.0	29	5	0	10.6	58	34	-71	28	5	3	0	0	1.0	13	10.3	N	19+	11	9	10	5.0	85
ST JOSEPH	247			27.0	12.8	19.8	-0.1	32.8	18	1.7	10	2	0			67	+30	63	5		0	0										
ST LOUIS	183	997.6	1017.4	27.2	13.0	20.1	-0.8	33.3	19	6.7	22	3	0	12.2	65	23	-51	11	5	1	0	0	0.8	20	12.1	SW	19	15	8	7	4.1	77
SPRINGFIELD	386	972.6	1017.3	27.8	12.9	20.4	-0.3	33.9	5+	3.3	10	4	0	11.7	62	49	+56	29	7	2	0	0	0.8	15	9.8	SW	19	11	9	10	5.5	61
MONTANA																																	
BILLINGS	1087	893.7	1011.4	24.7	8.0	16.7	1.7	34.4	5	1.1	27	3	0	3.3	45	31	-5	16	6	5	0	0	1.1	24	12.1	NW	6	13	9	8	4.4	77
GLASGOW	696	934.3	1014.5	24.3	6.6	15.4	1.4	35.0	5	-1.7	27	1	1	3.3	49	18	-11	5	3	3	0	0	0.5	5	13.9	NW	6	13	12	5	4.1	
GREAT FALLS	1116	896.3	1014.3	24.2	8.2	16.2	2.2	35.1	5	2.8	20+	2	0	3.3	46	15	+14	8	6	2	0	0	0.7	23	11.6	SW	12	13	10	7	4.7	84
HARRE	788	923.8		26.8	5.7	16.3	2.3	37.2	5	-2.8	27	6	3			1	+25	6	3	1	0	0	1.4	24	12.1	W	5	14	12	4	4.1	89
HELENA	1167	883.8	1011.3	22.8	5.9	14.4	1.3	33.3	5	0.0	9	1	1	3.9	55	44	+22	31	5	1	0	0	0.8	27	11.6	NW	6	15	8	7	3.8	74
KALISPELL	904	913.6	1012.0	23.3	4.2	13.8	1.9	30.6	4	-1.1	9	0	2	5.0	61	6	+2	6	3	1	0	0	0.0	3	9.4	E	18	14	11	5	3.7	
MILES CITY	901	923.1	1013.2	26.1	8.2	17.2	1.7	36.1	5	-1.7	27	7	1	3.9	48	27	+3	7	3	0	0	0	0.0	33								
MISSOULA	972	904.9	1013.2	23.9	4.2	14.1	1.2	33.3	1	-0.6	9	2	2	5.0	61	15	-19	8	5	2	0	0	0.2	27	17.9	NW	6	16	8	6	3.7	79
NEBRASKA																																	
GRAND ISLAND	561	951.2	1013.8	25.8	11.2	18.6	0.6	37.2	6	-0.6	28	6	1	10.0	63	61	+2	25	7	4	1	0	0.8	14	11.2	SW	7	15	7	8	4.1	
LINCOLN	353	974.6	1016.9	26.4	12.3	19.4	0.7	37.2	6	1.7	29	7	0	11.6	62	73	4	47	7	5	0	0	0.8	14	13.9	S	13	13	6	11	4.7	72
NORFOLK	471	961.4	1015.6	25.1	11.0	18.1	0.7	37.2	6	1.7	29+	5	0	8.3	59	61	4	31	7	4	0	0	0.9	19	14.3	SW	7	16	2	12	4.5	
NORTH PLATTE	848	939.7	1017.2	24.2	6.6	15.4	-1.4	35.6	5	-4.4	28	2	4	8.3	67	52	1	33	6	4	0	0	0.8	31	13.0	NE	3	13	6	11	4.7	71
OMAHA	298	982.1	1017.1	27.0	12.2	19.7	0.6	36.1	3	3.9	29	10	0	11.1	64	42	-41	19	8	4	0	0	1.1	13	11.6	SW	26+	13	6	11	5.1	71
SCOTTSBLUFF	1204	881.8	1012.2	26.8	7.7	17.3	1.1	37.2	6	-1.7	28	5	1	5.6	55	8	+24	2	2	1	0	0	0.6	3	11.2	SW	12+	11	10	9	4.7	
VALENTINE	788	925.5		25.8	8.0	16.9	0.6	37.8	5	-3.3	28	6	3			54	-9	38	7		0	0	0.9	24	18.3	S	6	17	3	10	3.9	78
NEVADA																																	
ELKO	1548	846.3	1013.3	24.9	7.4	16.2	1.9	36.1	2	0.0	8	5	1	3.3	51	47	38	14	13	6	0	0	0.4	3	10.3	W	24	14	4	12	4.8	
ELY	1904	811.0	1014.5	23.5	4.0	13.8	0.1	34.3	3	-4.6	26	2	3	2.2	52	17	1	6	3	2	0	0	0.2	20	16.1	SE	15	9	11	10	5.5	67
LAS VEGAS	658	934.3	1011.5	32.4	19.4	25.9	-0.8	41.7	1	15.6	19	16	0	8.9	39	20	61	15	7	4	0	0	1.0	14	13.4	SW	5	15	10	7	4.3	
RENO	1342	865.6	1013.7	26.9	6.4	16.7	1.0	34.7	24	3.3	23+	4	0	5.0	52	23	22	13	5	3	0	0	0.2	15	13.1	E	26	15	5	10	4.4	84
WINNEMUCCA	1311	868.9	1014.1	28.2	7.3	17.8	2.7	38.3	4	3.3	23	7	0	3.9	47	38	21	21	5	2	0	0	0.9	7	17.0	S	5	14	7	9	4.7	79
NEW HAMPSHIRE																																	
CONCORD	104	1003.1	1015.5	22.0	6.0	14.1	-1.3	31.7	14	-2.2	25	0	6	10.0	77	64	+8	51	11	6	0	0	0.8	25	11.2	W	7	8	9	13	6.3	63
MT WASHINGTON OBS	1909			6.6	0.9	3.7	-1.4	13.3	16+	-6.1	29+	0	17			168	7	44	16	12	18	T			44.7Y	SW	23	3	8	19	7.7	34
NEW JERSEY																																	
ATLANTIC CITY	20	1014.2	1015.7	24.5	12.0	18.3	-1.2	31.1	8	3.3	23	0	0	13.3	74	74	2	26	7		1	1	1.1	4	11.6	W	10	12	7	11	5.5	62
ATLANTIC CITY	3			22.4	15.3	18.8	-1.4	34.3	8	10.0	11	0	0			74	11	33	7						11.6	S	23+					
NEWARK	2	1015.2	1015.2	24.4	13.9	19.2	-0.7	31.7	14+	6.1	29	0	0	12.8	68	66	+24	32	8	1	0	0	1.3	25	9.4	NE	23+	10	8	12	6.1	
TRENTON WSO	17			24.2	13.9	19.1	-0.5	32.2	13	6.7	29	1	0			64	+15	25	7		0	1			11.6	S	23	13	3	14	5.9	56
NEW MEXICO																																	
ALBUQUERQUE	1619	840.6	1014.6	27.0	13.0	20.0	-1.2	33.4	6	4.4	26	2	0	7.8	49	21	+5		5	4	0	0	1.1	13	17.0	E	9+	12	11	7	5.0	71
CLAYTON	1515			29.2	11.7	18.4	-0.1	33.3	8	1.1	27	3	0			34	34	47	6		T	2										
ROSWELL	1112	892.0	1014.4	28.3	15.2	21.8	0.4	33.9	4+	6.7	29	5	0	12.8	61	54	2	26	8	6	1	0	1.8	14	17.9	NE	19	6	12	12	6.3	65
NEW YORK																																	
ALBANY	84	1005.4	1015.1	21.9	8.1	15.0	-1.6	29.4	14	-0.6	29+	0	2	11.7	82	65	+14	27	6	4	1	1	0.2	23	11.6	S	23	6	8	16	6.5	57
BINGHAMTON	485	958.7		19.1	8.1	14.1	-1.6	26.7	14	1.1	29	0	0			94	21	31	11				0.8	24	9.4	W	22	8	5	15	4.7	51
BUFFALO	215	990.2	1015.8	20.3	12.9	15.6	-0.8	28.9	9	2.8	25	0	0	9.4	78	134	54	74	23	6	3	0	0.1	33	18.3	SW	23	6	9	15	6.5	55
NEW YORK C	40	1013.5	1015.0	23.9	14.5	19.2	-1.0	31.7	14+	8.3	23	0	0	12.8	68	91	+3	45	9	4	0	0	0.7	27	7.6	S	27+					64
NEW YORK KENNEDY	4	1015.9	1015.5	22.8	14.4	18.7	-0.8	30.0	8	7.8	29	0	0	13.9	76	97	+27	15	9	1	0	0	1.6	25	11.2	E	23	9	11	10	5.6	
NEW YORK LA GUARDIA	3	1015.4	1015.5	23.7	15.7	19.7	-0.3	31.1	14+	9.4	29	0	0	12.2	65	7	+8	3	1	1	0	0	0.5	25	10.3	W	11	10	11	9	5.8	
ROCHESTER	167	995.9	1015.1	21.7	10.3	16.1	-0.8	31.1	9	2.2	24	0	0	11.7	80	54	+6	26	7	4	1	0	0.5	24	16.5	SW	23	6	9	15	6.7	57
SYRACUSE	125	1000.7	1015.6	21.9	10.0	15.4	-1.7	27.8	14	1.1	25	0	0	11.1	76	91	14	24	14	6	2	0	0.4	23	14.8	SW	23	5	8	17	7.2	45
NORTH CAROLINA																																	
ASHEVILLE	652	942.4	1014.3	23.4	11.1	17.2	-2.0	28.3	9	2.8	23	0	0	13.3	82	98	+2	51	10	6	1	0	0.0	34	11.2	SW	10	7	9	14	6.3	65

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No of days		Average relative humidity	Precipitation			No of days		Snow, Ice pellets		Wind				No of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers) Speed	Direction	Date	Clear 0-3	Partly cloudy 4-7	Cloudy 8-10		
NORTH CAROLINA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
CAPE HATTERAS 8	3	1016.9	1017.2	26.8	17.4	22.1	-1.1	28.9	18+	11.1	12	0	0	17.8	77	214	72	76	1	2	0	0	7.7	30	8.9	14	21+	8	4	13	6.0	46
CHARLOTTE	224	989.8	1017.1	26.3	16.3	20.8	-1.4	31.7	9	9.4	23+	0	0	15.0	72	140	53	54	8	2	0	0	4.6	4	14.3	SW	30	6	8	16	6.7	59
GREENSBORO	273	986.1	1017.4	25.3	13.4	19.4	-1.6	31.1	9	7.2	23+	0	0	13.9	76	6	-37	25	0	0	1	1	2.7	1	9.8	SW	27	4	7	14	6.1	57
RALEIGH	132	1001.4	1017.0	27.3	14.5	20.9	-0.5	34.2	9	7.2	23	1	0	13.9	68	155	64	71	7	1	0	0	4.1	22	7.6	SE	10	4	6	15	6.2	47
WILMINGTON	9	1015.4	1017.1	28.5	18.2	23.3	-0.4	31.7	9	11.7	11	0	0	19.4	81	129	-22	47	4	3	0	0	4.5	1	11.2	NE	14	6	10	14	4.7	65
NORTH DAKOTA																																
PINKHAM	502	556.7	1018.6	25.9	6.3	15.6	1.4	38.9	2	-2.6	27	4	5	5.0	56	4	-7	3	0	1	0	0	2.1	31	19.7	W	18	11	11	5	3.8	82
FARGO	273	583.1	1018.7	28.7	7.2	15.6	1.2	37.2	2	-2.8	23	5	4	3.9	50	18	-33	11	2	1	0	0	1.7	24	15.6	SW	7	14	10	6	4.3	77
WILLISTON	598	547.5	1018.7	24.2	4.0	15.1	1.4	38.3	6	-2.8	27	4	4	4.6	56	24	-6	14	5	2	0	0	1.7	29	14.3	W	18	11	7	11	4.7	73
OHIO																																
AKRON	368	973.2	1017.6	21.2	9.7	15.4	-2.2	28.9	9	3.3	29+	0	0	11.1	76	90	33	36	4	4	0	0	1.3	26	12.5	SW	17	11	6	13	5.6	
CINCINNATI LUKE FO	232			24.7	12.4	18.6	-1.7	31.7	8	6.7	22	0	0			46	-19	13	4				4.7			SW	9					54
CLEVELAND	237	988.5	1017.6	22.6	9.4	16.2	-1.6	31.1	9+	1.7	25	0	0	10.6	74	94	23	22	1	1	1	0	1.5	25	10.3	NW	9	9	7	14	6.1	68
COLUMBUS	247	989.2	1017.9	22.4	10.8	16.5	-1.9	28.9	8	3.3	22	0	0	11.1	74	65	9	14	3	1	0	0	1.5	27	11.6	SW	9	7	7	11	5.6	51
DAYTON	308	981.7	1017.7	23.7	9.3	16.5	-2.6	31.1	8	2.8	22	0	0	10.0	70	44	-14	10	3	1	0	0	1.1	26	10.7	SW	9	11	7	10	5.4	69
MANSFIELD	396			20.9	9.3	15.1	-3.4	27.8	9	2.2	22	0	0			99	47	29	7	5	0	0			11.6	NW	23	8	9	13	5.6	
TOLEDO	204	992.2	1017.2	23.1	8.6	15.8	-1.8	32.3	8	-1.1	24	1	2	9.4	72	91	33	38	11	4	0	0	1.8	28	12.1	W	9	12	8	10	5.1	63
YOUNGSTOWN	350	974.4	1017.9	21.3	9.3	15.3	-1.8	30.6	8	1.7	25	0	0	9.4	69	131	64	57	11	3	0	0	1.3	25	8.9	W	23	4	9	13	6.9	
OKLAHOMA																																
OKLAHOMA CITY	392	976.9	1016.4	29.2	16.9	23.6	-0.2	34.1	5+	5.0	29	8	0	13.9	63	39	-51	24	7	4	1	1	1.7	14	15.8	N	15	11	6	13	5.7	69
TULSA	199	997.4	1015.4	28.9	16.4	22.7	-0.3	36.7	5+	8.9	30+	8	0	14.4	67	65	-37	42	7	3	1	1	1.4	15	12.5	SW	15	11	5	14	5.6	58
OREGON																																
ASTORIA	9	1014.4	1017.4	20.6	11.2	16.0	1.3	27.8	9	7.8	8	0	0	10.6	71	47	-32	31	0	1	0	0	.0	27	9.4	E	13	5	12	12	4.6	
BURNS	1265			24.2	7.1	15.8	1.2	33.9	1	1.7	9	1	0			33	-1	10	0		0	0			14.3	W	17	17	9	5	3.9	
EUGENE	109	1002.7	1016.1	25.6	9.7	17.7	1.0	35.6	10	5.6	13	2	0	10.6	69	29	-3	14	0	0	0	0	.0	24	9.8	E	8	13	8	4	4.9	
MEDFORD	394	987.8	1014.9	27.7	9.4	18.6	3.0	34.4	9	4.4	7	5	0	9.4	63	23	-4	11	4	1	0	0	.4	31	11.7	E	27	16	0	4	3.2	
PENDLETON	453	967.4	1013.6	27.6	11.6	19.6	1.8	35.6	1	5.6	8	3	0	7.2	50	8	-19	4	0	0	0	0	.4	32	12.5	W	19	9	5	6	3.0	
PORTLAND	6	1015.2	1016.4	23.7	13.1	17.9	1.1	30.6	20	7.2	8	0	0	11.7	70	20	-22	11	0	0	0	0	.2	23	9.4	E	9	6	6	10	4.3	67
SALEM	60	1000.6	1015.6	24.4	8.9	16.7	0.1	31.1	19+	3.3	7	0	0	11.1	74	62	-41	21	4	1	0	0	.3	25	7.4	E	16+	11	6	13	4.4	
SOUTH CAROLINA	169	984.8	1016.6	31.2	19.2	25.2	1.4	36.7	14+	5.6	15+	0	0			4	-5	19	4		0	0	.1	3	13.4	E	15					
CHARLESTON AP	11			29.3	22.4	25.9	-0.3	31.1	3	18.9	28+	4	0			227	84	83	6						15.4		5					
CHARLESTON	9	1011.6	1016.9	28.4	20.4	24.4	0.2	32.2	7	22.2	8	4	0	22.8	89	96	-13	52	7	3	1	1	4.5	6	10.7	E	6	2	2	26	5.1	83
FLORENCE	38			31.2	21.0	26.1	0.6	36.7	30+	20.6	8	6	0			134	-134	53	4				3.8	6	10.3	E	16+		5	2		70
GREENVILLE	292			29.3	25.2	27.4	0.6	34.4	29	22.3	24	6	0			244	83	53	6				3.8	5	11.2							
GREER	3			29.7	24.1	26.9	0.5	34.4	27	22.8	22+	6	0			83	-3	23	5				3.8	4	12.5							86
ROCK HILL		1013.4	1016.7	30.7	23.4	26.1	0.1	36.7	9+	19.4	18+	8	0	21.1	74	93	-23	43	7				3.8	3	11.6							64
SPARTANBURG	307			29.4	22.5	26.4	0.6	35.6	27+	21.1	14	9	0			110	-137	41	7				3.8	11	11.6							89
TENNESSEE																																
CHATTANOOGA	210	991.5	1016.4	31.5	20.0	25.8	0.2	36.7	30+	20.3	13+	5	0	24.4	88	142	-45	57	6	3	0	0	4.3	6	10.7	E	15	2	2	26	6.1	84
KNOXVILLE	299			29.8	20.0	25.0	-1.0	34.1	30+	21.1	27+	3	0			84	-94	41	7	3	0	0	3.4	17	10.3	E	15	3	2	25	6.1	65
MEMPHIS	98	1003.1	1016.6	33.7	21.1	27.4	0.7	36.1	24+	23.3	23	0	0	11.7	71	111	-47	57	7		0	0	4.5	27	11.6	E	5	3	4	13	6.1	
NASHVILLE	183	994.2	1017.4	31.6	19.1	25.3	0.5	36.7	24	21.8	25	3	0	11.1	77	98	-8	38	14				4.0	25	11.6	E	23	4	4	14	6.1	
CHATTANOOGA	183	1001.1	1017.4	33.8	18.4	26.2	1.2	37.2	9	5.0	28	6	0	13.9	77	79	-21	28	8		0	0	3.2	26	11.2	E	5	1	1	19	6.4	82
CHATTANOOGA DOWNTOWN	2	1015.4	1014.7	28.6	19.0	23.8	0.4	34.4	24+	16.7	29	2	0	12.2	65	63	-110	29	6		0	0	2.7	26	11.2	E	33+	1	1	11	6.4	84
CROSSVILLE	347	979.3	1017.8	31.1	9.9	15.5	-2.2	36.1	8	5.0	25+	0	0	10.6	75	93	-6	26	4		0	0	1.6	27	11.2	E	16+	1	1	13	4.1	54
KNOXVILLE	983	982.7	1016.7	31.6	11.5	16.3	-1.1	34.7	24+	8.3	29	0	0	11.1	73	96	25	39	4	1	0	0	2.8	24	11.6	E	23	2	3	15	4.1	51
MILLINGTON	267	998.	1017.8	33.1	21.5	26.6	0.9	36.1	9	21.4	23	0	0	22.2	80	80	-71	39	6		0	0	4.7	27	9.6	E	27	2	1	13	4.5	
MORRISTOWN	396																															
OAK RIDGE	34			31.1	18.4	24.6	0.7	37.2	24	20.1	29	6	0			4	-237	19	0													
MURFREESBORO	26	998.8	1017.1	31.1	17.9	24.4	0.1	36.1	24+	8.9	29+	0	0	11.7	76	71	-44	31	5				4.8	25	9.8			1	1	16	5.6	54
SMOKY MOUNTAINS NP																																
GATLINBURG	10	1016.4	1016.9	28.2	15.2	21.7	0.7	34.1	24+	11.1	24+	2	0	18.9	79	124	12	41	11	4			4.4		11.2						7.2	64

CLIMATOLOGICAL DATA

METRIC UNITS

SEPTEMBER 1976

State and Station	Elevation (ground)	Pressure: Station Q	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days Max 32.2 °C or above	Temperature: No of days Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days 25 mm or more	Precipitation: No of days With thunderstorms	Precipitation: Snow, Ice pellets Total	Precipitation: Snow, Ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No of days (sunrise to sunset) Clear, 0-3	No of days (sunrise to sunset) Partly cloudy, 4-7	No of days (sunrise to sunset) Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
SOUTH CAROLINA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
CHARLESTON WSO	3			27.6	20.8	24.2	+0.6	31.1	10+	16.1	11	0	0			12	-15	11														
COLUMBIA	65	1003.9	1015.6	28.6	15.3	22.4	-1.2	37.3	9+	8.3	12	2	0	17.2	77	144	38	71	4	3	2	0	2.2	9	19.3	4	14	6	5	19	6.9	47
GREENVILLE-SPARTANBRG	292	982.7	1015.8	26.1	14.5	20.3	-1.7	34.5	9	8.3	23+	0	0	14.4	74	91	11+	66	8	2	0	0	1.7	2	14.3	NE	14	7	9	14	6.0	60
SOUTH DAKOTA																																
ABERDEEN	395	969.5	1016.1	25.7	7.8	16.7	1.6	38.3	6	-2.2	28	4	3	5.6	52	2	-22	19	3	0	0	0	1.6	17	11.2	36	19+	18	6	6	3.7	
HURON	398	969.5	1016.1	25.6	7.1	16.4	0.4	40.0	6	-2.8	28	4	4	6.7	59	54	-9	25	5	3	1	0	1.5	17	14.3	SW	2	14	8	8	4.1	80
RAPID CITY	964	906.9	1017.5	26.3	8.4	17.4	1.6	37.8	6	-1.7	28	5	1	3.3	46	7	-26	7	4	1	1	0	2.8	34	15.6	N	12	13	2	10	3.9	74
SIOUX FALLS	437	965.8	1015.9	26.1	8.2	17.2	1.1	40.0	6	-4.4	28	5	3	6.7	53	18	-52	6	4	1	0	0	2.8	17	17.3	18	12+	13	5	10	4.3	
TENNESSEE																																
KNOXVILLE	453	964.1	1015.8	24.4	12.9	18.4	-1.9	34.4	9	5.0	23	0	0	13.3	77	114	43	28	4	3	1	0	1.3	34	7.6	30	12	6	9	15	6.7	
CHATTANOOGA	203	992.9	1017.2	26.3	14.0	20.6	-1.6	37.2	8	7.2	23	0	0	15.6	77	87	+9	29	8	5	1	0	2.6	2	11.6	33	9	11	5	14	5.8	52
NASHVILLE	598	982.7	1017.5	25.6	14.1	19.8	-2.2	31.7	9	6.7	23	0	0	15.6	81	73	-2	34	12	6	2	0	0.9	36	9.8	20	9	12	6	14	6.1	54
OLIVE BRANCH	78	1007.1	1017.4	27.9	17.7	22.8	-0.3	37.2	25+	14.4	12+	0	0	16.1	69	147	61	104	12	4	2	0	3.5	7	8.9	36	9	11	6	13	5.7	73
MEMPHIS	189	995.9	1017.4	25.1	13.6	19.4	-2.9	28.8	8	7.2	11	0	0	14.4	78	128	51	54	4				2.2	24	8.0	33	9	13	7	10	5.1	67
OAK RIDGE 2	274			24.1	12.4	18.3	-2.8	31.1	9	4.4	23	0	0			114	31	34	4						8.0Y		11	11	7	13	6.9	
TEXAS																																
ABILENE	546	953.6	1015.4	28.8	17.3	23.1	-1.4	34.4	5	9.4	29	9	0	16.7	72	121	44	68	8	6	2	0	1.5	15	11.6	S	12+	8	12	15	6.9	59
AMARILLO	1099	893.7	1015.6	26.1	12.2	19.2	-1.8	34.8	12+	3.3	28	5	0	12.2	71	105	46	55	8	8	2	0	1.8	18	16.5	34	26	8	10	12	6.0	67
AUSTIN	182	993.9	1015.4	31.1	20.1	25.6	-0.4	38.-	5	13.3	22	17	0	18.9	71	97	3	46	7	4	2	0	0.8	11	17.9	NW	26	9	11	10	5.8	68
BROWNSVILLE	6	1013.9	1014.8	32.3	22.8	27.6	0.1	34.4	8	20.0	23	22	0	22.2	75	72	-60	32	11	6	1	0	1.8	12	10.3	S	8	4	19	7	6.0	69
CORPUS CHRISTI	12	1013.2	1014.8	32.6	22.1	27.4	0.2	35.5	26	17.8	22	24	0	21.7	75	64	-6	28	9	7	2	0	2.1	10	9.8	26	26+	5	16	9	5.9	65
DALLAS - FORT WORTH	168	994.9	1015.7	30.3	18.7	24.5	-0.9	37.2	4	12.2	30	14	0	17.2	69	122	47	57	11	7	2	0	3.4	15	8.0	20	3	13	5	12	5.4	
DEL RIO	317	979.7	1014.4	31.6	20.3	26.0	-0.8	34.4	8+	15.0	30	18	0	18.9	63	58	-59	18	5	3	1	0	2.4	10	15.6	31	26	4	14	16	7.3	
EL PASO	1194	883.5	1013.7	29.0	13.7	21.4	-2.1	33.9	13+	7.2	29	4	0	12.8	64	47	14	14	7	5	1	0	0.7	13	10.3	22	26	9	11	11	5.4	72
GALVESTON	3			29.1	23.0	26.5	-0.2	33.3	9	2.8	30	2	0			91	66	81	14						11.3	NE	5					64
HOUSTON INTERCON	23	1011.9	1015.7	30.7	18.4	24.6	-1.7	35.-	1	12.2	30	10	0	20.0	81	280	170	205	11	10	3	0	3.6	7	10.3	2	9	8	11	11	5.5	53
LUBBOCK	992	905.5	1015.3	26.7	15.4	21.1	-0.6	34.4	12	6.1	29	1	0	14.4	70	81	28	48	7	6	2	0	0.9	15	13.6	6	8	5	12	12	6.0	65
MIDLAND	869	917.7	1014.7	28.1	16.0	22.1	-2.1	34.2	25+	8.9	30+	3	0	15.0	69	31	-7	12	4	5	2	0	1.8	14	11.2	2	27+	6	13	15	7.2	
PORT ARTHUR	5	1015.2		21.4	19.9	25.7	-0.3	35.-	6	13.4	30	13	0			114	-22	51	11	7	2	0	0.8	6	12.5	NW	26	6	15	9	5.7	66
SAN ANGELO	580	949.5	1015.-	28.3	18.1	23.2	-1.7	33.3	4	11.7	29	2	0	17.8	75	114	49	41	8	6	0	0	1.2	13	11.6	14	8	4	12	14	7.4	
SAN ANTONIO	240	987.5	1014.7	30.6	20.0	25.3	-1.0	33.8	9+	12.8	22	11	0	18.9	72	96	2	28	7	6	0	0	1.3	9	13.4	34	26	4	16	10	6.7	67
VICTORIA	32	1011.2	1015.3	31.1	21.6	25.8	-0.9	33.9	9+	13.9	22	10	0	20.6	79	194	76	43	14	12	0	0	1.3	8	24.1Y	W	26	3	19	8	6.4	
WACO	151	998.0	1015.6	31.7	19.3	25.5	-0.6	36.1	26	11.7	22	18	0	18.3	70	144	63	41	8	6	0	0	1.0	10	13.4	32	28	6	11	11	6.4	
WICHITA FALLS	303	979.7	1015.8	29.7	18.0	23.8	-1.7	34.7	4	10.-	29	10	0	16.7	72	205	124	146	4	2	0	0	1.9	16	13.9	36	13	11	5	14	5.7	
UTAH																																
MILFORD	1533	847.6	1014.7	26.6	7.7	17.2	-0.1	34.4	4	-1.3	27+	3	0			11	-5	7	5		0	0			15.2	SW	11	13	5	12	5.0	75
SALT LAKE CITY	1286	872.7	1014.7	27.2	11.1	19.1	0.9	34.4	2	6.-	8	5	0	5.6	45	4	-13	2	6	7	0	0	0.9	17	17.0	W	17	10	15	5	4.7	82
WENDOVER	1291	871.7	1015.1	25.7	14.1	19.9	0.9	35.0	2	8.3	18	4	0	3.3	37	17	4	5	5		0	0										
VERMONT																																
BURLINGTON	101	1003.1	1015.4	19.1	8.6	13.9	-1.3	27.2	14	0.6	29	0	0	10.6	81	94	15	38	12	1	1	0	1.2	19	14.3	S	23	1	1.	15	7.6	43
VIRGINIA																																
LYNCHBURG	279	983.7		25.6	12.6	19.1	-0.9	33.2	9+	5.6	23	2	0			129	45	48	6		0	0	0.5	32	11.6	NE	15	11	8	11	5.5	68
NORFOLK	7	1015.9	1017.1	27.1	16.3	21.7	-0.4	33.3	8	10.6	23	2	0	15.0	68	89	-18	47	5	2	0	0	0.5	19	9.4	2	28+	8	12	10	5.4	
RICHMOND	50	1010.5	1015.8	27.7	13.1	20.4	-0.7	35.6	8	5.5	23	3	0	15.0	74	121	30	55	8	3	0	0	0.2	21	9.8	NW	10	9	10	11	5.8	65
ROANOKE	350	976.0	1017.6	25.2	11.6	18.4	-1.6	33.8	8	2.2	23	2	0	12.9	75	81	-6	24	9	0	0	0	0.9	20	9.4	33	10	8	11	11	5.9	
WALLOPS ISLAND	3			24.8	16.7	20.7	-0.3	30.0	8	11.1	11+	0	0			112	30	54	10		0	0			17.0Y	W	27					
WASHINGTON																																
OLYMPIA	59	1009.5	1016.7	21.5	8.4	14.9	0.2	28.9	20	1.7	8	0	0	11.1	80	31	-23	21	6	3	0	0	0.3	19	8.0	26	6	4	14	12	6.5	
QUILLAYUTE	55	1009.8	1017.2	20.0	8.8	14.4	0.6	27.2	9	3.3	8	0	0	11.1	85	61	-70	22	11	0	0	0	0.4	22	8.0	S	13	7	7	16	6.5	49
SEATTLE U	6			20.5	12.5	16.5	0.6	27.8	20	10.0	15+	0	0			34	-28	17	6		0	0			13.0Y	NNW	8					
SEATTLE-TACOMA	122	1001.0	1017.2	21.6	12.4	17.0	1.7	33.0	20	10.0	13+	0	0	12.8	78	32	-19	17	7	0	0	0	0.4	35	8.5	N	19+	7	12	11	6.0	55
SPOKANE	719	932.3	1015.3	25.2	9.7	17.4	2.1	33.9	1	0.6	8	1	0	6.1	52	1	-20	1	1	1	0	0	0.5	15	11.6	SW	11+	10	10	5	4.0	82
STAMPEDE PASS R	1206	881.1		16.9	8.2	12.6	1.8	23.3	21	1.1	6	0	0			52	-66	21	10		T	0						13	9	8	4.6	
WALLA WALLA	399			27.6	12.8	20.2	1.5	35.0	1	6.1	8	2	0			3	-19	2	3		0	0			8.0	SW	11	19	5	6	3.3	77
YAKIMA	321	977.3	1015.4	27.1	8.8	18.0	1.7	35.6	1	1.7	9	2	0	7.2	55	3	-6	3	3	0	0	0	2.0	29	12.5	30	11	20	6	4	3.1	

CLIMATOLOGICAL DATA

METRIC UNITS

SEPTEMBER 1976

State and Station	Elevation (ground)	Pressure: Station ϕ	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days Max. 32.2 °C or above	Temperature: No of days Min 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days 25 mm or more	Precipitation: No of days With thunderstorms	Precipitation: Snow, Ice pellets Total	Precipitation: Snow, Ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No of days (sunrise to sunset) Clear, 0.3	No of days (sunrise to sunset) Partly cloudy, 4-7	No of days (sunrise to sunset) Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
WEST INDIES																																	
SAN JUAN P.R.	4	1012.9	1015.1	31.0	25.4	28.2	1.2	33.9	21+	24.4	30+	9	0	21.7	68	291	136	104	18	15	0	0	2.8	9	13.4	5m	3	3	15	11	6.5	66
WEST VIRGINIA																																	
BECKLEY	783	930.4	1018.4	24.6	10.4	15.5	-1.6	27.2	9	3.9	22	0	0	11.1	80	146	54	35	15	1	0	0	0.8	24	9.8	24	16	2	8	17	7.1	
CHARLESTON	288	984.1	1019.1	28.2	18.4	17.4	-2.3	30.0	9	4.4	22	0	0	12.2	77	134	62	41	14	2	0	0	0.7	26	8.9	24	23	7	9	14	6.3	
ELKINS	594	947.9		22.5	8.4	15.5	-0.9	28.3	13+	0.6	23	0	0			120	39	26	15		0	0						6	10	14	6.7	
HUNTINGTON	253	987.8	1017.8	32.7	11.9	17.3	-2.5	28.3	13+	3.9	22	0	0	13.3	81	108	46	37	11	2	0	0	0.7	28	7.6	23	9	6	9	15	6.8	
PARKERSBURG	197			32.8	11.9	17.4	-2.3	36.1	13+	6.1	29+	0	0			71		4	11		0	0			8.5	14	15					56
WISCONSIN																																	
GREEN BAY	209	991.5	1017.4	21.8	6.7	14.3	-0.7	33.3	7	-2.8	28	1	4	6.7	65	7	-75	15	5	1	0	0	1.4	8	17.7	5m	3	14	6	10	6.6	80
LA CROSSE	199	994.2	1018.7	23.2	9.0	16.1	-0.4	33.9	7	1.1	24+	1	0	8.3	63	14	-72		5		0	0	0.6	20									
MADISON	262	988.5	1017.9	23.1	5.7	14.4	-0.9	30.3	8+	-3.3	24	2	4	7.2	65	13	-73	11	4	1	0	0	1.0	27	11.2	5m	3	15	6	8	6.2	74
MILWAUKEE	205	992.6	1017.5	22.3	11.7	17.0	0.8	36.2	8	1.7	24	1	0	10.6	69	43	-34	24	6	2	0	0	1.7	29	13.0	5m	3	13	7	10	6.8	66
WYOMING																																	
CASPER	1627	840.8	1014.4	23.4	6.9	15.2	0.3	33.3	2	-0.6	9	2	2	2.8	54	28	7	15	7	2	0	0	1.3	24	14.8	22	6	12	10	8	4.9	
CHEYENNE	1867	815.4	1014.5	21.7	6.8	14.3	-0.3	31.1	5	-1.1	28	0	1	1.7	49	20	-7	6	11	3	0	0	1.5	28	15.2	24	15	10	6	14	5.6	58
LANDER	1694	832.4	1013.7	23.2	7.6	15.4	0.7	30.6	2	1.7	28	1	0	1.7	47	14	-13	9	6	3	0	0	0.6	25	13.4	24	6	11	11	8	4.7	75
SHERIDAN	1209	881.1	1013.2	25.2	5.6	15.3	0.9	35.6	5	-1.7	28	5	2	5.0	57	41	10	18	9	3	1	1	1.2	30	13.2	24	6	11	10	9	4.7	75

HEATING DEGREE DAYS

(Base 65°F.)

SEPTEMBER 1976

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	7	7	6
HUNTSVILLE	19	19	11
MOBILE	0	0	0
MONTGOMERY	0	0	0
ALASKA			
ANCHORAGE	521	967	1009
ANNETTE	283	693	772
BARROW	976	2636	2705
BARTER ISLAND	935	2534	2586
BETHEL	598	1235	1313
BETTLES	613	1036	1387
BIG DELTA	540	827	1148
COLD BAY	585	1482	1418
FAIRBANKS	583	847	1070
GULKANA	641	945	1262
HOMER	541	1259	1325
JUNEAU	437	982	1094
KING SALMON	585	1306	1204
KODIAK	475	1075	1101
KOTZEBUE	606	1332	1535
MC GRATH	617	1079	1212
NOME	591	1510	1539
ST. PAUL ISLAND	649	1791	1759
SUMMIT	718	1469	1664
TALKEETNA	572	1016	1109
UNALAKLEET	587	1207	1392
VALDEZ	588	1189	1321
YAKUTAT	516	1187	1233
ARIZONA			
FLAGSTAFF	230	318	376
PHOENIX	0	0	0
TUCSON	0	0	0
WINSLOW	39	39	19
YUMA	0	0	0
ARKANSAS			
FORT SMITH	20	20	0
LITTLE ROCK	1	1	5
CALIFORNIA			
BAKERSFIELD	0	0	0
BISHOP	24	30	49
BLUE CANYON	156	376	193
EUREKA U	255	697	770
FRESNO	5	6	0
LONG BEACH	0	0	7
LOS ANGELES	0	0	57
LOS ANGELES U	0	0	5
MT SHASTA R	126	291	246
OAKLAND	51	117	213
RED BLUFF	0	0	0
SACRAMENTO	1	1	5
SANDBERG R	117	212	50
SAN DIEGO	0	0	22
SAN FRANCISCO	79	189	243
SAN FRANCISCO U	114	323	481
SANTA MARIA	23	37	308
STOCKTON	0	0	0
COLORADO			
ALAMOSA	314	470	445
COLORADO SPRINGS	191	202	177
DENVER	142	149	120
GRAND JUNCTION	41	41	60
PUEBLO	106	108	55
CONNECTICUT			
BRIDGEPORT	89	66	42
HARTFORD	178	134	118
DELAWARE			
WILMINGTON	44	48	32
DIST. OF COLUMBIA			
WASHINGTON DULLES	65	73	43
WASHINGTON NATIONAL	11	11	14
FLORIDA			
APPALACHICOLA U	0	0	0
DAYTONA BEACH	0	0	0
FORT MYERS	0	0	0
JACKSONVILLE	0	0	0
KEY WEST	0	0	0
LAKELAND U	0	0	0
MIAMI	0	0	0
ORLANDO	0	0	0
PENSACOLA	0	0	0
TALLAHASSEE	0	0	0
TAMPA	0	0	0
WEST PALM BEACH	0	0	0
GEORGIA			
ATHENS	6	6	6
ATLANTA	10	10	8
AUGUSTA	0	0	0
COLUMBUS	0	0	0
MACON	0	0	0
ROME	8	8	11
SAVANNAH	0	0	0
IDAHO			
BOISE	76	115	139
LEWISTON	14	34	141
POCATELLO	143	178	212
ILLINOIS			
CAIRO U	5	5	11
CHICAGO O HARE	119	128	115
CHICAGO MIDWAY	88	95	65
MOLINE	123	128	90
PEORIA	106	115	78
ROCKFORD	174	193	121
SPRINGFIELD	84	87	56
INDIANA			
EVANSVILLE	27	27	34
FORT WAYNE	121	132	102
INDIANAPOLIS	79	81	68
SOUTH BEND	139	158	128
IOWA			
BURLINGTON	101	105	78
DES MOINES	76	77	107
DUBUQUE	180	194	172
SIOUX CITY	108	109	123
WATERLOO	178	206	170
KANSAS			
CONCORDIA	57	57	73
DODGE CITY	48	48	41
GOODLAND	121	124	108
TOPEKA	45	45	55
WICHITA	38	38	32
KENTUCKY			
COVINGTON	72	76	44
LEXINGTON	64	69	40
LOUISVILLE	29	29	35
LOUISIANA			
ALEXANDRIA	0	0	0
BATON ROUGE	0	0	0
LAKE CHARLES	0	0	0
NEW ORLEANS	0	0	0
SHREVEPORT	0	0	0
MAINE			
CARIBOU	405	621	533
PORTLAND	229	347	282
MARYLAND			
BALTIMORE	34	34	27
MASSACHUSETTS			
BLUE HILL OBS R	135	179	131
BOSTON	55	66	84
WORCESTER	192	255	178
MICHIGAN			
ALPENA	270	367	450
DETROIT	106	114	91
DETROIT METRO	133	149	116
FLINT	169	203	197
GRAND RAPIDS	185	217	149
HOUGHTON LAKE	296	412	401
LANSING	210	271	169
MARQUETTE U	293	408	374
MUSKEGON	219	267	189
SAULT STE MARIE	349	515	512
MINNESOTA			
DULUTH	310	457	489
INTERNATIONAL FALLS	362	496	542
MINNEAPOLIS	162	166	205
ROCHESTER	225	252	241
ST CLOUD	258	294	287
MISSISSIPPI			
JACKSON	0	0	0
MERIDIAN	3	3	0
MISSOURI			
COLUMBIA REGIONAL	43	43	42
KANSAS CITY	45	45	42
ST JOSEPH	48	48	54
ST LOUIS	24	24	35
SPRINGFIELD	41	41	41
MONTANA			
BILLINGS	131	137	244
GLASGOW	185	214	308
GREAT FALLS	144	147	322
HAVRE	146	163	322
HELENA	219	279	394
KALISPELL	244	412	558
MILES CITY	140	144	242
MISSOULA	231	345	411
NEBRASKA			
GRAND ISLAND	95	95	113
LINCOLN	83	83	83
NORFOLK	108	109	140
NORTH PLATTE	178	191	156
OMAHA	61	61	77
SCOTTSBLUFF	120	128	168
VALENTINE	151	159	172
NEVADA			
ELKO	145	237	335
ELY	245	406	350
LAS VEGAS	0	0	0
RENO	116	247	235
WINNEMUCCA	81	134	247
NEW HAMPSHIRE			
CONCORD	234	355	243
MT WASHINGTON OBS	781	1862	1774
NEW JERSEY			
ATLANTIC CITY	71	88	35
ATLANTIC CITY L	38	41	23
NEWARK	56	60	34
TRENTON U	58	63	39
NEW MEXICO			
ALBUQUERQUE	35	35	7
CLAYTON	80	82	73
ROSWELL	18	18	17
NEW YORK			
ALBANY	196	243	166
BINGHAMTON	241	334	233
BUFFALO	180	230	183
NEW YORK U	44	48	29
NEW YORK KENNEDY	53	59	42
NEW YORK LA GUARDIA	36	38	30
ROCHESTER	173	211	161
SYRACUSE	179	248	149
NORTH CAROLINA			
ASHEVILLE	83	88	50
CAPE HATTERAS R	1	1	0
CHARLOTTE	5	5	10
GREENSBORO	19	20	24
RALEIGH	7	7	12
WILMINGTON	0	0	0
NORTH DAKOTA			
BISMARCK	193	210	305
FARGO	227	249	280
WILLISTON	203	224	331
OHIO			
AKRON	171	242	126
CINCINNATI ABBE OB	48	50	37
CLEVELAND	150	175	121
COLUMBUS	118	144	84
DAYTON U	121	146	70
MANSFIELD	185	249	89
TOLEDO	162	196	122
YOUNGSTOWN	183	260	149
OKLAHOMA			
OKLAHOMA CITY	19	19	12
TULSA	16	16	10
OREGON			
ASTORIA	128	350	513
BURNS U	154	329	324
EUGENE	58	106	211
MEDFORD	48	88	121
PENDLETON	31	77	116
PORTLAND	47	103	223
SALEM	98	204	216
SEXTON SUMMIT R	161	450	391
PENNSYLVANIA			
ALLENTOWN	101	111	91
ERIE	163	233	208
HARRISBURG	75	80	51
PHILADELPHIA	42	44	38
PITTSBURGH	159	233	121
PITTSBURGH U	101	121	64
SCRANTON	155	188	141
WILLIAMSPORT	121	133	110
RHODE ISLAND			
BLOCK ISLAND	87	104	99
PROVIDENCE	124	149	103
SOUTH CAROLINA			
CHARLESTON	0	0	0
CHARLESTON U	0	0	0
COLUMBIA	0	0	0
GRNVLLE-SPRTNBRG	11	11	9
SOUTH DAKOTA			
ABERDEEN	165	170	235
HURON	173	182	191
RAPID CITY	132	141	221
SIOUX FALLS	142	143	193
TENNESSEE			
BRISTOL	46	46	
CHATTANOOGA	11	11	
KNOXVILLE	19	19	
MEMPHIS	0	0	
NASHVILLE	31	31	
OAK RIDGE	45	46	
TEXAS			
ABILENE	11	11	
AMARILLO	59	59	
AUSTIN	0	0	
BROWNSVILLE	0	0	
CORPUS CHRISTI	0	0	
DALLAS FT WORTH	0	0	
DEL RIO	0	0	
EL PASO	7	7	
GALVESTON	0	0	
HOUSTON INTERCON	0	0	
LUBBOCK	30	30	
MIDLAND	10	10	
PORT ARTHUR	0	0	
SAN ANGELO	3	3	
SAN ANTONIO	0	0	
VICTORIA	0	0	
WACO	0	0	
WICHITA FALLS	7	7	
UTAH			
MILFORD	84	87	1
SALT LAKE CITY	37	44	1
WENDOVER	10	23	
VERMONT			
BURLINGTON	254	342	2
VIRGINIA			
LYNCHBURG	34	36	
NORFOLK	0	0	
RICHMOND	15	16	
ROANOKE	47	50	
WALLOPS ISLAND	8	9	
WASHINGTON			
OLYMPIA	177	408	3
QUILLAYUTE	207	610	6
SEATTLE	96	194	2
SEATTLE-TACOMA	81	157	3
SPOKANE	74	165	2
STAMPEDE PASS R	303	976	9
WALLA WALLA U	22	47	
YAKIMA	61	140	2
WEST VIRGINIA			
BECKLEY	151	224	1
CHARLESTON	84	93	
ELKINS	152	220	1
HUNTINGTON	76	77	
PARKERSBURG U	85	90	
WISCONSIN			
GREEN BAY	255	313	2
LA CROSSE	176	193	1
MADISON	230	280	2
MILWAUKEE	124	147	1
WYOMING			
CASPER	199	216	2
CHEYENNE	224	279	2
LANDER	182	199	2
SHERIDAN	186	207	3

COOLING DEGREE DAYS

(Base 65°F.)

SEPTEMBER 19'6

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM	219	1411	1844
HUNTSVILLE	142	1207	1736
MOBILE	321	2353	2391
MONTGOMERY	287	1707	2114
ALASKA			
ANCHORAGE	0	3	0
ANNETTE	0	17	14
BARROW	0	0	0
BARTER ISLAND	0	0	0
BETHEL	0	0	0
BETTLES	0	27	17
BIG DELTA	0	36	34
COLD BAY	0	0	0
FAIRBANKS	0	39	52
GULKANA	0	39	9
HOMER	0	0	0
JUNEAU	0	6	0
KING SALMON	0	0	0
KODIAK	0	5	0
KOTZEBUE	0	0	0
MC GRATH	0	2	14
NOME	0	1	0
ST. PAUL ISLAND	0	0	0
SUMMIT	0	0	0
TALKEETNA	0	5	6
UNALAKLEET	0	2	0
VALDEZ	0	0	0
YAKUTAT	0	0	0
ARIZONA			
FLAGSTAFF	0	98	140
PHOENIX	548	3585	3242
TUCSON	386	2587	2601
WINSLOW	94	1049	1189
YUMA	549	3513	3783
ARKANSAS			
FORT SMITH	197	1349	1943
LITTLE ROCK	220	1560	1862
CALIFORNIA			
BAKERSFIELD	406	2322	2059
BISHOP	82	824	1022
BLUE CANYON	47	285	302
EUREKA	0	0	0
FRESNO	228	1364	1605
LONG BEACH	286	1182	855
LOS ANGELES	140	672	509
LOS ANGELES	233	980	1001
MT SHASTA R	39	232	286
OAKLAND	35	166	114
RED BLUFF	397	1870	1822
SACRAMENTO	213	1300	1111
SANDBERG R	82	615	780
SAN DIEGO	249	910	631
SAN FRANCISCO	33	169	95
SAN FRANCISCO	37	150	23
SANTA MARIA	40	157	67
STOCKTON	273	1282	1217
COLORADO			
ALAMOSA	0	26	88
COLORADO SPRINGS	98	435	455
DENVER	82	667	620
GRAND JUNCTION	103	1114	1129
PUEBLO	76	852	971
CONNECTICUT			
BRIDGEPORT	78	749	729
HARTFORD	47	613	584
DELAWARE			
WILMINGTON	186	997	980
DIST. OF COLUMBIA			
WASHINGTON DULLES	45	772	931
WASHINGTON NATIONAL	179	1539	1386
FLORIDA			
DAYTONA BEACH	347	2038	2406
FT MYERS BEACH	406	2354	2512
FT MYERS	435	2831	3076
JACKSONVILLE	341	2074	2346
KEY WEST	365	3770	3912
MIAMI BEACH	458	2893	2821
MIAMI	470	3303	3253
ORLANDO	474	2858	2753
TALLAHASSEE	353	2140	2472
TAMPA	367	2215	2368
WEST PALM BEACH	440	2738	2816
ST PALM BEACH	457	2908	3072
GEORGIA			
ATHENS	177	1397	1664
ATLANTA	159	1243	1532
AUGUSTA	228	1657	1914
COLUMBUS	282	1798	2044
MACON	297	1845	2181
ROME	175	1323	1565
SAVANNAH	306	1876	2170
HAWAII			
HILO	364	2367	2296
HONOLULU	479	3309	3175
KAHULUI	424	2870	2806
LIHUE	412	3228	2799
IDAHO			
BOISE	55	533	708
LEWISTON	139	682	657
POCATELLO	28	372	437
ILLINOIS			
CAIRO	178	1458	1751
CHICAGO O HARE	56	758	452
CHICAGO MIDWAY	81	886	906
MOLINE	72	847	877
PEORIA	62	786	951
ROCKFORD	31	621	703
SPRINGFIELD	98	998	1095
INDIANA			
EVANSVILLE	98	1102	1339
FORT WAYNE	38	660	739
INDIANAPOLIS	43	766	961
SOUTH BEND	36	678	687
IOWA			
BURLINGTON	62	794	974
DES MOINES	104	1030	910
DUBUQUE	29	563	596
SIOUX CITY	89	962	923
WATERLOO	55	663	465
KANSAS			
CONCORDIA	182	1368	1275
DODGE CITY	205	1496	1384
GOODLAND	64	867	916
TOPEKA	171	1274	1331
WICHITA	187	1394	1629
KENTUCKY			
COVINGTON	99	817	1063
LEXINGTON	46	766	1174
LOUISVILLE	92	1120	1241
LOUISIANA			
ALEXANDRIA	336	2400	2069
BATON ROUGE	367	2795	2400
LAKE CHARLES	383	2640	2508
NEW ORLEANS	390	2309	2474
SHREVEPORT	288	1788	2376
MAINE			
CARIBOU	4	231	128
PORTLAND	5	308	252
MARYLAND			
BALTIMORE	114	1140	1094
MASSACHUSETTS			
BLUE HILL OBS R	30	596	457
BOSTON	61	887	661
WORCESTER	16	443	387
MICHIGAN			
ALPENA	26	375	208
DETROIT	98	962	733
DETROIT METRO	53	703	444
FLINT	41	597	456
GRAND RAPIDS	49	638	569
HOUGHTON LAKE	24	308	255
LANSING	45	555	429
MARQUETTE	53	389	216
MUSKEGON	21	435	463
SAULT STE MARIE	21	167	139
MINNESOTA			
DULUTH	26	271	176
INTERNATIONAL FALLS	27	281	176
MINNEAPOLIS	72	943	578
ROCHESTER	36	637	467
ST CLOUD	40	557	426
MISSISSIPPI			
JACKSON	300	1896	2190
MERIDIAN	220	1420	2119
MISSOURI			
COLUMBIA REGIONAL	130	1068	1239
KANSAS CITY	169	1262	1383
ST JOSEPH	136	1160	1298
ST LOUIS	109	1204	1434
SPRINGFIELD	156	1196	1341
MONTANA			
BILLINGS	49	547	498
GLASGOW	35	437	438
GREAT FALLS	37	384	332
HAVRE	42	493	395
HELENA	10	171	256
KALISPELL	3	111	117
MILES CITY	84	864	744
MISSOULA	7	158	188
NEBRASKA			
GRAND ISLAND	111	1076	1025
LINCOLN	144	1168	1133
NORFOLK	100	1054	915
NORTH PLATTE	27	533	802
OMAHA	139	1232	1154
SCOTTSBLUFF	66	829	666
VALENTINE	81	886	731
NEVADA			
ELKO	36	228	342
ELY	4	127	207
LAS VEGAS	419	2710	2801
RENO	33	236	329
WINNEMUCCA	56	489	407
NEW HAMPSHIRE			
CONCORD	8	418	349
MT WASHINGTON OBS	0	0	0
NEW JERSEY			
ATLANTIC CITY	74	762	864
ATLANTIC CITY U	69	674	825
NEWARK	110	1093	1013
TRENTON U	105	1047	958
NEW MEXICO			
ALBUQUERQUE	137	1136	1309
CLAYTON	81	724	759
ROSWELL	211	1777	1533
NEW YORK			
ALBANY	22	476	574
BINGHAMTON	15	301	369
BUFFALO	40	432	437
NEW YORK U	103	1071	1054
NEW YORK KENNEDY	80	784	853
NEW YORK LA GUARDIA	119	1153	1038
ROCHESTER	55	565	531
SYRACUSE	31	357	551
NORTH CAROLINA			
ASHEVILLE	35	543	857
CAPE HATTERAS R	214	1413	1461
CHARLOTTE	146	1241	1546
GREENSBORO	82	1039	1312
RALEIGH	157	1440	1357
WILMINGTON	277	1895	1869
NORTH DAKOTA			
BISMARCK	54	663	487
FARGO	83	762	473
WILLISTON	37	506	422
OHIO			
AKRON	22	424	628
CINCINNATI ABBE OB	69	904	766
CLEVELAND	39	598	606
COLUMBUS	25	606	801
DAYTON U	28	668	923
MANSFIELD	16	402	808
TOLEDO	34	597	678
YOUNGSTOWN	28	461	518
OKLAHOMA			
OKLAHOMA CITY	253	1652	1808
TULSA	256	1637	1871
OREGON			
ASTORIA	8	23	13
BURNS U	94	227	289
EUGENE	30	228	239
MEDFORD	66	431	562
PENDLETON	103	575	656
PORTLAND	30	212	300
SALEM	16	129	232
SEXTON SUMMIT R	79	153	137
PACIFIC AREA			
GUAM TAGUAC R	414	3698	3735
JOHNSTON	473	3560	3782
KWAJALEIN	499	4493	4459
MAJURO	449	4139	4414
PAGO PAGO	406	4015	3967
PONAPE R	444	4267	4238
TRUK MOEN ISLAND	469	4422	4395
WAKE	542	4133	4056
YAP R	437	4108	4417
PENNSYLVANIA			
ALLENTOWN	69	795	766
ERIE	33	337	373
HARRISBURG	73	919	1017
PHILADELPHIA	115	1204	1091
PITTSBURGH	18	358	640
SCRANTON	37	601	611
WILLIAMSPORT	47	675	698
RHODE ISLAND			
BLOCK ISLAND	21	481	359
PROVIDENCE	33	628	532
SOUTH CAROLINA			
CHARLESTON	274	1830	1960
CHARLESTON U	320	2094	2182
COLUMBIA	231	1745	1995
GRNVLLE-SPRTNBRG	126	1123	1530
SOUTH DAKOTA			
ABERDEEN	82	950	506
HURON	73	888	711
RAPID CITY	87	673	622
SIOUX FALLS	85	1031	713
TENNESSEE			
BRISTOL	54	753	1078
CHATTANOOGA	142	1157	1584
KNOXVILLE	107	1128	1521
MEMPHIS	247	1752	1949
NASHVILLE	96	1144	1641
OAK RIDGE	53	771	1393
TEXAS			
ABILENE	270	1894	2334
AMARILLO	110	1008	1397
AUSTIN	401	2351	2678
BROWNSVILLE	509	3054	3332
CORPUS CHRISTI	498	2919	3016
DALLAS FT WORTH	338	2179	2435
DEL RIO	419	2511	3115
EL PASO	179	1717	2057
GALVESTON	445	2429	2604
HOUSTON INTERCON	341	2176	2633
LUBBOCK	187	1418	1609
MIDLAND	219	1649	2140
PORT ARTHUR	404	2302	2563
SAN ANGELO	276	1828	2548
SAN ANTONIO	383	2338	2705
VICTORIA	414	2564	2835
WACO	395	2429	2609
WICHITA FALLS	282	2010	2482
UTAH			
MILFORD	30	512	688
SALT LAKE CITY	87	940	916
WENDOVER	108	1122	1132
VERMONT			
BURLINGTON	23	483	396
VIRGINIA			
LYNCHBURG	80	915	1083
NORFOLK	193	1531	1403
RICHMOND	133	1373	1346
ROANOKE	58	862	1018
WALLOPS ISLAND	140	935	1081
WASHINGTON			
OLYMPIA	0	14	102
QUILLAYUTE	0	0	8
SEATTLE	7	72	183
SEATTLE-TACOMA	15	129	129
SPOKANE	33	293	388
STAMPEDE PASS R	0	14	16
WALLA WALLA U	130	693	826
YAKIMA	56	336	417
WEST INDIES			
SAN JUAN P.R.	557	4180	3721
WEST VIRGINIA			
BECKLEY	6	356	494
CHARLESTON	39	800	1046
ELKINS	6	336	488
HUNTINGTON	32	882	1088
PARKERSBURG U	41	738	1025
WISCONSIN			
GREEN BAY	41	520	386
LA CROSSE	66	771	683
MADISON	34	625	454
MILWAUKEE	52	663	444
WYOMING			
CASPER	33	439	458
CHEYENNE	13	217	327
LANDER	33	394	488
SHERIDAN	28	382	440

STORM SUMMARY

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				ø ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAM.
								PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY
Alabama																4													
Alaska												4	4															1
Arizona								4	4	1		6	6													1		7
Arkansas												3																
California	6	3			4									1												3		7
Colorado	4	1														1												
Connecticut *																												
Delaware																												4
Florida	5	4		6	4							4		2	11	5												3
Georgia												4																
Hawaii *																												
Idaho												4	2			2												3
Illinois *																												
Indiana	3	1	2	12	6																							
Iowa *																												
Kansas	2	2			4			5	3						1	4												
Kentucky	2	1	1		5				4																			4
Louisiana												4				4												
Maine *																												
Maryland & DC												3			1													4
Massachusetts																1												
Michigan																4												
Minnesota																4												
Mississippi												3				2												2
Missouri																												
Montana *																												
Nebraska	1	1																										
Nevada *																												
New Hampshire *																												
New Jersey *																												
New Mexico	1	1																								2	8	6
New York																												
North Carolina															1	3												
North Dakota *																												
Ohio	1	1			4																							4
Oklahoma								5	8							4												4
Oregon																3												
Pacific *																												
Pennsylvania *																												
Puerto Rico *																												
Rhode Island																3												
South Carolina *																												
South Dakota *																												
Tennessee *																												
Texas	10	7			5			6	7		13	6	5			3												6
Utah *																												
Vermont *																												
Virginia								4	3		1	4																3
Virgin Islands *																												
Washington *																												
West Virginia *																												
Wisconsin																												
Wyoming *																												

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

SEPTEMBER 1976

Herbert J. Thompson, Office of Hydrology

Major flash flooding occurred in southern California and western Arizona as a result of heavy rainfall associated with tropical cyclone Kathleen. There were 5 flood related deaths. Flood losses approached $50 million while total storm losses were estimated at $168 million.

The only significant river flooding occurred on the Kenoi Peninsula in Alaska and in southern Texas on the Llano and Nueces Rivers. Minor flooding was reported in the headwaters of the Red River Basin in Oklahoma and on several Texas streams.

Significant urban flooding was reported in Erie County, Pennsylvania, the Washington, D.C. area, and Houston, TX. Serious flash flooding occurred in New Mexico.

The Mississippi River reached the lowest stage in 45 years of record at Memphis, TN.

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
GREAT LAKES - ST. LAWRENCE DRAINAGE		
Rainfall amounts of up to at least 5 inches caused local highway and drainage flooding in parts of Erie County, PA, and Chautauqua County, NY, on the 17th. The bridge abutments on old Highway 62 near Eden, PA, were washed out and roads were closed for several hours in this area.	0	N.A.
ATLANTIC SLOPE DRAINAGE		
Heavy rains of up to 6 inches caused widespread urban flooding in Washington, D.C. Metropolitan area the 15th-16th. About 500 people were evacuated along Four Mile Run in Alexandria, VA, as a precautionary measure but no serious flooding was reported.	0	N.A.
Urban flooding was reported in Wilmington, NC, on the 2d due to about 1.5 inches of rain.		
UPPER MISSISSIPPI RIVER BASIN		
There was no flooding in the basin during the month. Rainfall continued well below normal. Many streams approached record low levels. The Mississippi River reached a stage of 2.6 feet at Lock and Dam 15 near Moline, IL, - the next lowest stage on record. The lowest stage on record was 2.5 feet in 1941. Hydroelectric power generation in the Wisconsin River Basin during the month was the second lowest on record. The lowest occurred in October 1948.		
OHIO RIVER BASIN		
There was no river flooding in the Basin during the month. However, locally heavy rains with amounts up to 6 inches caused small stream and urban flooding in parts of Kentucky; Gallia, Lawrence, and Scioto Counties in Ohio; and Kanawha and Jackson Counties in West Virginia on the 26th-27th.	0	N.A.
RED RIVER BASIN		
Locally heavy rains on the 12th-13th over southwest Oklahoma	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
RED RIVER BASIN-Cont'd		
caused relatively minor flooding on the Salt Fork of the Red at Mangum, OK, and the North Fork of the Red River at Headrick with crests more than a foot over flood stage.		
LOWER MISSISSIPPI BASIN		
The extended period of below normal rainfall over much of the Mississippi River Drainage caused a record low stage of -5.7 feet at Memphis, TN. The previous record low of -5.4 feet occurred in January 1956. The NWS began obtaining records at Memphis in 1932.		
WEST GULF OF MEXICO DRAINAGE		
Locally heavy rain occurred over parts of Texas during the month causing some flooding. Amounts of about 7 inches the first 3 days of the month over the Upper Trinity River Basin caused the Trinity to slightly exceed flood stage at Trinidad. The Nueces River was above flood stage from near Three Rivers to Calallen during the latter part of the month in response to rains of up to at least 5 inches in lower McMullen and LaSalle Counties on the 19th. Maximum flooding of more than 10 feet occurred at Mathis Bridge. The river was out of its banks much of the month upstream at Cotulla but did not exceed flood stage. Rains of about 4 inches over the headwaters of the Devils, Llano and San Saba Rivers on the 1st caused some flooding on those streams. The Llano crested more than 3 feet over flood stage near Junction.	0	N.A.
Severe urban and bayou flooding occurred in the Houston, TX, area the 19th-20th with rainfall amounts of up to 8 inches reported. Most seriously affected were the North Houston and Humble areas.	0	250
Flash flooding struck several areas of New Mexico again during the month. The most seriously affected area was around the town of Truth or Consequences where 2 were killed and 8 injured when 4 cars drove into a washout on State Route 52. Numerous utility lines were exposed and damaged in the area. Other New Mexico communities affected by flash flooding were Deming, Aztec, Silver City, and Roswell.	2	N.A.
GULF OF CALIFORNIA DRAINAGE		
Numerous incidents of flash flooding occurred in Arizona during the month. Bullhead City was struck twice by major flash flooding. The most serious flooding was in the following areas:	1	6,000
On the 10th-11th, ...tropical storm Kathleen with its torrential rains of 2 to 5 inches brought severe flash flooding to Mohave County. The hardest hit was Bullhead City and surrounding area along the Colorado River. The area was devastated between the afternoon of the 10th and the morning of the 11th. Eight washes carried walls of water from elevations of over 3,000 feet to the east into the Bullhead City area with an elevation of 675 feet. There was severe damage to streets, highways, residences, businesses, water and gas mains and culverts. Many cars were swamped in tons of debris. Silver Creek Wash,		

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
GULF OF CALIFORNIA DRAINAGE-Cont'd		
cross Highway 95, was cut into a 20 to 40 feet deep canyon by the raging water. The city was severed from all outside assistance. Estimates of damage to roads and streets was put in excess of $500,000 and damage to private property at $2,500,000. Bullhead City was declared a disaster area by the county superviors on the evening of the 10th and by the Governor's office on the 21st.		
On the 24th, heavy rains of 2 to 5 inches over much of the general area again pushed walls of water into this community which was still trying to dig out from the millions of tons of silt, rocks and debris from the devastating flood produced by tropical storm Kathleen. Highway 95, the only access to the outside, was again quickly inundated in several places. A number of cars, some with occupants, were swept down the washes. Eight persons were rescued, some by a private helicopter. Additional damage from this storm was estimated between $2 to $3 million.		
In the Phoenix area violent thunderstorms with amounts of rain locally over 2 inches, late on the 24th and early on the 25th, triggered home-damaging mud and rock slides on Camelback Mountain. Numerous homeowners had to remove considerable debris from homes and yards. Dozens of roads and streets were closed. In the Scottsdale area, many cars were either stranded in washes or carried downstream. People were rescued all through the night, but no injuries were reported. There was some flooding of homes and extensive water damage to a school and high school.		
Heavy thunderstorms deluged sections of the county late on the 24th and early on the 25th. There was considerable flooding of streets in the city of Yuma and many low lying sections of highways in the county. A few residences were flooded in the city. There were a number of power outages due to lightning strikes. No injuries were reported.		
In the Tucson area on the afternoon and evening of the 25th, heavy thundershowers with intermittent hail rapidly filled the normally dry washes, especially the Pantano Wash and Rillito River. Flooding occurred on almost 100 streets and roads throughout the city, particularly on the north and east sides, where local amounts of rain ranged upward to 3½ inches. Nearly a dozen cars, some with occupants, were swept into washes on the east side. One man was missing and presumed drowned. Two boys were carried down the Rillito River 1½ miles before they could reach ground after their car failed to cross the stream. The size of hail ranged upward to 3/4 inch diameter with some as large as golf balls. Up to 5 inches of hail covered the ground in the Mt. Lemmon area.		
PACIFIC SLOPE DRAINAGE		
ajor flash flooding occurred over much of Southern California he 10th-11th as a result of heavy rains associated with Kathleen, the first tropical cyclone to hit Southern California in 7 years. Rainfall amounts of 9 to 14.5 inches were reported rom mountainous areas while storm totals at lower elevations ere in the range of 2 to 4 inches which exceeded normal annual nnual amounts at some stations. Normally dry washes became	5	42,000

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
PACIFIC SLOPE DRAINAGE-Cont'd		
raging torrents causing hundreds of road washouts. Imperial County estimated 900 washouts on their 2,600 miles of county road system. Road closures were also reported in Orange, Riverside, San Diego, Los Angeles, San Bernardino, and Inyo Counties from washouts, mud slides, and water on the roads. Hardest hit community was Ocatillo where a wall of water reportedly 30 feet high rushed down Meyers Canyon destroying the bridge on Interstate Highway 8 creating a gap 700 feet wide and 40 feet deep. Ninety percent of the homes in Ocatillo were destroyed or severely damaged with 3 deaths and 100 people evacuated. Other towns suffering severe damage in the Imperial Valley were Holtville and El Centro. The New River, which drains northward from Mexico into the Salton Sea, was reported 12 feet above normal and the level of the Salton Sea raised 6 to 8 inches flooding several communities. At least 75 people were evacuated from Salton City. Flood waters moving down the Carrigo Gorge northeast of Jacumba destroyed 3 bridges and several miles of the San Diego-Arizona Eastern Railway track. Flood losses in Imperial County have been estimated at $7,800,000 including 22 homes destroyed and 700 homes and 35 businesses damaged. Flood losses in Riverside County totaled $35 million. Flooding also occurred in the Palm Desert - Palm Springs area, the San Diego area, and Los Angeles. The highest stages of record were reported by the U.S. Geological Survey on several streams.		
Other flooding included flash flooding on Fullerton Creek in Orange County on the 5th, and in Corona on the 7th. Urban flooding occurred in Elsinore on the 7th, 10th, and 17th and the Palm Desert - Palm Springs area again on the 23d and 24th.	0	N.A.
ALASKA		
Heavy rains the 20th-21st (5.1 inches in Seward) caused flooding on several Kenai Peninsula streams. Seward was the hardest hit with flooding by the Resurrection River and Salmon Creek. Approach fills to several bridges were washed out making roads impassable and isolating sections of towns. Low lying areas were flooded and 12 families were evacuated. In the Kenai River Basin, Snow River overtopped the Seward Highway for a short time and flooding occurred along the Trail River and around Kenai Lake. The Kenai River crested about 2 feet over flood stage at Cooper Landing.	0	N.A.

FLOOD STAGE DATA

River and station	Flood stage	Above flood stages – dates		Crest	
		From	To	Stage	Date
[illegible]	[illegible]			[illegible]	
[illegible]					
Mangum, OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]					
[illegible], OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]					
[illegible]					
[illegible], TX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]					
[illegible], TX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]					
[illegible], TX [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible], TX	[illegible]	[illegible]	29	25.3	[illegible]
Calallen, TX	[illegible]	[illegible]	[illegible]	# 8.5	[illegible]
[illegible]					
Bakers Crossing, TX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ALASKA					
[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

RAWINSONDE DATA

Average monthly values

ALBANY, NY — 1007 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	86	11.0	9.9	20	.7
1000	24	154	12.2	9.5	22	1.0
950	30	572	12.7	7.4	27	3.8
900	30	1,025	10.5	4.7	28	6.0
850	30	1,499	8.4	-.7	28	7.2
800	30	1,999	6.1	-5.0	28	9.2
750	30	2,526	3.8	-8.2	27	11.1
700	30	3,083	.8	-12.5	27	12.7
650	30	3,675	-1.9	-15.8	27	14.2
600	30	4,308	-5.3	-19.2	26	15.2
550	30	4,986	-9.1	-23.4	26	17.2
500	30	5,718	-13.7	-26.7	26	19.1
450	30	6,511	-18.8	-32.3	26	21.1
400	30	7,377	-25.3	-38.3	26	22.8
350	30	8,335	-32.6	-43.4	26	24.7
300	30	9,410	-40.8	-45.8	26	27.6
250	30	10,617	-49.8		26	27.5
200	30	12,050	-57.0		26	27.2
175	30	12,894	-57.7		26	23.8
150	30	13,865	-58.7		27	19.4
125	30	15,009	-59.7		26	13.5
100	30	16,412	-59.9		27	10.7
80	30	17,800	-58.4		27	7.8
70	30	18,693	-56.9		27	6.8
60	30	19,621	-56.1		26	4.3
50	30	20,784	-54.5		26	3.0
40	28	22,263	-53.4		26	1.6
30	28	24,189	-51.5		30	.9
25	28	25,276	-50.0		30	1.9
20	27	26,744	-47.6		33	1.9
15	24	28,656	-45.2		28	1.7
10	9	31,415	-40.0			
7						

ALBUQUERQUE, NM — 841 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	1,619	14.9	8.1	08	1.5
30	2,040	14.3	5.3	16	1.8
30	2,583	11.3	3.1	20	2.9
30	3,156	7.5	.6	24	2.6
30	3,763	3.1	-3.8	24	2.1
30	4,407	-1.2	-9.3	23	2.0
30	5,095	-5.6	-14.1	24	3.1
30	5,837	-9.8	-23.4	25	5.5
30	6,642	-14.9	-28.8	25	7.1
30	7,523	-21.2	-35.0	25	8.6
30	8,497	-28.7	-40.7	25	10.9
30	9,579	-37.1	-46.0	25	14.9
29	10,811	-46.3		25	19.5
29	12,264	-55.0		25	22.6
29	13,109	-59.0		22	21.0
29	14,066	-63.4		26	17.2
29	15,176	-67.1		26	11.7
28	16,521	-68.3		26	5.8
27	17,869	-65.7		28	.2
27	18,886	-63.4		04	1.0
26	19,636	-61.3		09	2.5
26	20,776	-58.2		10	2.6
26	22,192	-55.5		09	2.7
25	24,036	-52.7		09	3.5
24	25,222	-50.9		09	3.7
24	26,680	-49.1		09	3.4
23	28,580	-46.4		08	3.2
19	31,307	-42.1		09	4.0
6	33,684	-39.6			

AMARILLO, TX — 894 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	1,095	14.4	12.7	22	1.8
30	1,521	16.2	9.5	23	4.4
30	2,035	14.0	5.8	25	3.6
30	2,577	10.6	3.1	27	2.5
30	3,149	7.1	-1.9	28	2.4
30	3,755	3.1	-6.8	28	2.6
30	4,399	-1.0	-11.7	28	2.2
30	5,088	-4.9	-18.5	27	3.6
30	5,831	-9.4	-23.2	27	5.1
30	6,638	-14.8	-28.7	27	6.0
30	7,518	-21.2	-33.4	27	8.0
30	8,493	-28.2	-40.8	27	12.7
30	9,577	-36.7	-46.6	27	18.7
30	10,814	-46.1		27	20.1
30	12,266	-55.6		27	24.3
30	13,109	-59.7		27	22.7
30	14,062	-64.1		28	17.7
30	15,166	-68.4		28	11.6
30	16,449	-69.0		29	6.8
29	17,840	-66.4		32	2.0
28	18,855	-64.2		02	1.4
28	19,605	-61.5		06	1.9
28	20,754	-58.2		10	3.3
28	22,166	-56.0		10	2.9
28	24,013	-52.5		09	3.3
28	25,197	-50.8		09	3.5
28	26,636	-49.0		09	3.7
25	28,556	-46.1		08	4.4
21	31,287	-42.5		10	6.4

* ANCHORAGE, AK — 999 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	45	7.5	4.3	13	1.2
14	91	7.6	2.8	12	1.0
30	457	6.9	1.6	12	2.1
30	900	4.4	-.5	12	3.7
30	1,363	1.2	-2.6	12	5.5
30	1,848	-2.0	-5.3	13	7.5
30	2,359	-5.0	-8.7	14	9.8
30	2,896	-8.4	-12.8	15	10.0
30	3,468	-12.0	-16.7	15	9.5
30	4,076	-16.0	-22.3	15	9.6
30	4,726	-20.5	-27.0	15	9.4
29	5,424	-25.5	-31.4	16	10.2
29	6,181	-30.5	-38.3	16	8.8
29	7,008	-36.5	-41.5	17	9.4
29	7,924	-42.7		18	9.5
29	8,947	-49.0		19	9.4
29	10,134	-51.9		20	9.9
29	11,589	-49.2		20	9.9
28	12,468	-48.6		21	8.4
28	13,482	-48.6		21	8.3
28	14,681	-49.1		21	7.3
28	16,143	-50.2		21	6.5
28	17,601	-50.0		21	6.3
28	18,474	-50.1		22	5.7
28	19,480	-50.5		21	5.1
28	20,668	-51.0		22	5.1
28	22,121	-50.9		23	4.6
28	23,993	-51.4		23	4.6
27	25,183	-50.7		25	4.9
27	26,639	-50.4		26	4.7
20	28,503	-49.8		26	5.8
6	31,313	-44.0			

* ANNETTE, AK — 1011 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	37	11.2	9.0	13	2.3
30	125	11.2	8.4	14	3.4
30	553	9.3	4.8	16	7.6
30	999	6.8	1.5	17	9.1
30	1,467	4.2	-.7	18	9.6
30	1,959	1.8	-3.0	19	10.0
30	2,477	-.9	-7.7	20	10.6
30	3,025	-3.8	-11.9	20	11.2
30	3,607	-6.7	-15.2	21	11.5
30	4,228	-10.4	-19.0	21	11.6
30	4,893	-14.6	-23.4	21	12.9
30	5,609	-19.1	-29.2	22	14.0
29	6,386	-24.1	-33.3	22	16.8
29	7,235	-29.9	-38.9	22	18.2
29	8,176	-36.6	-43.3	22	19.3
29	9,225	-43.9	-46.3	23	21.1
29	10,430	-50.7		23	23.2
28	11,870	-55.2		24	19.0
28	12,726	-55.0		24	17.9
27	13,712	-54.8		24	14.2
27	14,876	-55.6		24	12.1
27	16,299	-55.2		24	9.8
27	17,727	-54.2		24	7.0
27	18,584	-53.9		24	6.0
27	19,574	-54.0		25	4.1
27	20,745	-53.7		24	2.8
27	22,173	-54.2		32	1.0
24	24,024	-54.0		03	1.9
23	25,201	-53.1		02	2.3
19	26,644	-52.0		02	2.8
15	28,520	-50.5		03	2.3
7	31,203	-46.5			

ATHENS, GA — 988 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	246	17.2	14.0	35	.7
30	585	18.8	13.0	02	1.0
30	1,048	16.2	10.1	01	.6
30	1,533	13.2	7.2	29	.9
30	2,041	11.0	.7	27	2.5
30	2,578	8.3	-.5	27	4.3
30	3,145	5.5	-4.3	27	5.2
30	3,749	2.8	-9.1	27	6.2
30	4,393	-.7	-13.1	27	6.5
30	5,083	-4.9	-17.9	27	7.4
30	5,826	-9.9	-22.0	27	8.1
30	6,631	-15.0	-27.6	26	8.4
30	7,511	-21.3	-31.9	26	9.8
30	8,486	-28.4	-39.1	26	12.5
30	9,569	-37.0	-46.8	26	14.5
29	10,803	-47.0		27	16.3
29	12,248	-57.0		27	19.7
28	13,085	-61.2		28	19.0
28	14,033	-64.3		28	15.6
28	15,140	-66.9		28	12.6
28	16,405	-66.8		29	8.9
28	17,842	-64.0		28	2.4
28	18,664	-62.0		30	1.3
28	19,623	-59.8		03	.5
28	20,773	-56.8		16	2.7
28	22,194	-54.6		09	3.7
28	24,049	-51.3		09	5.0
28	25,238	-49.8		09	5.6
28	26,703	-48.5		09	6.5
27	28,614	-46.3		08	6.9
10	31,333	-42.1		09	8.6
7					

* BARROW, AK — 1008 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
28	8	-.2	-1.0	07	2.7
26	78	-.4	-.8	08	2.8
28	482	-.3	-3.9	10	3.2
28	915	-.8	-5.1	12	2.5
28	1,370	-2.6	-7.8	15	2.4
28	1,849	-5.0	-10.1	16	2.7
28	2,354	-7.5	-13.7	16	3.2
28	2,889	-10.6	-17.8	17	3.7
28	3,455	-13.8	-22.5	18	4.2
28	4,059	-17.7	-27.4	18	4.5
28	4,705	-21.7	-32.6	19	4.8
28	5,400	-26.5	-36.5	19	5.5
28	6,154	-31.6	-40.8	20	6.5
27	6,973	-38.1	-45.1	20	5.9
27	7,882	-44.9		20	7.1
27	8,894	-51.8		20	6.9
27	10,069	-53.0		20	6.2
27	11,522	-49.0		21	5.8
27	12,400	-48.6		21	5.8
27	13,416	-49.1		21	4.7
26	14,612	-49.4		21	4.6
26	16,073	-49.7		21	5.1
24	17,534	-50.0		22	4.3
23	18,404	-50.3		22	4.2
19	19,412	-50.7		22	5.3
19	20,398	-51.5		22	5.0
17	22,046	-51.9		23	5.3
14	23,902	-52.6		24	5.1
9	25,077	-51.3			

BARTER ISLAND, AK — 1005 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	15	.7	.4	10	1.8
24	78	1.1	-.1	10	1.3
30	470	2.9	-1.7	10	2.0
30	908	2.8	-4.8	12	1.1
30	1,369	.6	-6.5	15	.9
30	1,854	-1.9	-9.2	18	1.7
30	2,365	-4.7	-11.8	19	2.3
30	2,904	-8.1	-15.7	21	2.7
30	3,476	-11.5	-20.4	20	2.9
30	4,086	-15.3	-25.8	21	3.5
30	4,737	-19.8	-30.4	20	3.8
30	5,438	-24.6	-35.2	20	5.0
30	6,197	-30.1	-39.9	21	5.7
30	7,025	-36.2	-45.1	21	6.0
30	7,942	-43.0	-45.3	22	7.7
30	8,961	-50.2		22	9.1
30	10,138	-54.3		22	9.3
30	11,584	-50.4		22	8.4
30	12,457	-49.7		22	8.5
30	13,465	-49.9		22	7.3
30	14,657	-50.1		23	6.8
30	16,115	-50.3		23	6.6
30	17,568	-49.9		23	6.2
30	18,441	-50.1		23	7.0
30	19,446	-50.9		24	7.1
30	20,633	-51.1		24	7.2
30	22,083	-51.7		24	7.5
30	23,950	-51.8		25	8.2
29	25,133	-51.5		25	8.9
29	26,584	-50.8		25	8.4
28	28,463	-49.6		26	8.4
25	31,120	-48.2		27	9.8
6	33,567	-43.5			

BETHEL, AK — 993 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	39	5.0	4.0	06	.8
12	77	6.1	3.7	25	.7
30	422	6.1	1.2	11	3.1
30	863	3.1	-.9	13	3.6
30	1,324	-.1	-3.9	15	3.6
30	1,807	-2.7	-7.2	14	3.5
30	2,317	-5.7	-11.0	14	3.4
30	2,854	-9.1	-14.4	13	4.4
30	3,424	-12.4	-19.1	14	4.1
30	4,031	-16.3	-22.3	14	3.6
30	4,681	-20.7	-26.8	14	3.7
30	5,379	-25.6	-30.5	13	4.1
29	6,139	-30.8	-37.2	14	4.0
29	6,965	-36.9	-42.3	14	3.1
27	7,878	-43.7		15	3.2
27	8,896	-50.1		15	3.5
29	10,080	-52.6		16	2.3
29	11,539	-48.0		20	3.6
29	12,422	-47.5		21	4.5
29	13,439	-47.9		21	3.9
29	14,640	-48.5		22	4.6
28	16,107	-48.9		22	4.3
28	17,571	-49.4		21	4.3
28	18,446	-49.4		21	5.1
27	19,454	-49.7		22	4.7
27	20,647	-50.0		22	5.1
27	22,105	-50.3		22	5.1
27	23,982	-50.4		23	5.3
25	25,175	-49.6		24	4.9
25	26,645	-48.8		24	5.8
23	28,537	-48.5		25	6.1

* BISMARCK, ND — 957 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	503	7.9	3.9	03	.9
25	581	9.6	4.1	03	.4
30	1,019	14.6	2.1	25	3.1
30	1,501	12.3	-.8	28	3.8
30	2,007	10.0	-4.0	28	4.9
30	2,541	7.0	-7.3	29	6.4
30	3,104	3.4	-10.0	30	7.8
30	3,701	-.1	-13.8	30	8.6
30	4,338	-4.0	-16.9	30	9.8
30	5,019	-8.1	-22.9	30	10.5
30	5,753	-13.2	-27.6	30	11.0
29	6,547	-18.7	-32.4	29	11.6
29	7,414	-25.2	-39.2	29	12.6
29	8,372	-32.6	-45.0	29	13.7
29	9,436	-41.3	-50.0	29	14.4
29	10,648	-50.5		29	15.6
29	12,081	-57.0		29	16.4
29	12,923	-58.6		29	16.7
29	13,889	-59.5		29	16.7
29	15,027	-60.6		29	14.1
30	16,416	-60.6		30	10.1
30	17,807	-59.9		30	7.2
30	18,644	-58.6		30	5.3
31	19,615	-57.8		31	4.7
32	20,769	-56.7		32	3.5
31	22,188	-55.4		31	2.5
30	24,040	-52.4		30	2.4
28	25,224	-50.8		29	1.8
26	26,666	-49.9		27	3.5
24	28,552	-46.9		27	5.6
13	31,296	-42.5			

BOISE, ID — 916 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	871	12.4	6.5	13	2.1
30	1,301	16.7	5.5	12	1.8
30	1,808	15.9	2.1	13	1.6
30	2,320	12.6	-.3	14	1.5
30	2,858	8.9	-3.3	19	2.0
30	3,425	5.0	-6.8	21	2.9
30	4,026	-2.9	-17.1	23	4.2
30	4,665	-7.2	-21.7	23	4.7
30	5,349	-12.2	-25.7	24	3.5
30	6,082	-17.7	-30.5	23	3.7
30	6,871	-24.4	-37.1	23	3.4
30	7,724	-31.9	-43.3	24	3.9
30	8,654	-40.7	-49.6	24	4.3
29	9,677	-49.9		24	5.5
29	10,797	-55.8		27	8.9
29	12,135	-57.3		27	9.1
29	12,982	-57.5		27	9.2
29	13,952	-59.3		26	9.2
29	15,087	-61.7		26	6.8
30	16,408	-62.2		27	5.6
30	17,849	-61.3		28	3.0
30	18,680	-60.1		29	2.2
29	19,645	-59.0		31	1.1
30	20,792	-57.8		36	1.0
30	22,205	-56.3		36	1.2
30	24,044	-53.3		32	1.2
29	25,818	-52.0		30	1.3
28	26,666	-50.4		30	2.1
27	28,540	-47.8		27	4.4
8	31,189	-44.1			

BOOTHVILLE, LA — 1015 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	1	23.9	21.5	03	.7
30	132	24.5	20.8	04	1.1
30	581	21.3	17.7	05	.7
30	1,048	18.6	12.7	16	1.9
30	1,537	15.7	9.5	20	1.5
30	2,051	13.5	3.6	27	2.0
30	2,592	10.5	.9	25	2.5
30	3,164	7.6	-4.8	26	2.9
30	3,771	4.3	-7.5	27	3.3
30	4,419	.8	-12.6	27	4.2
30	5,113	-3.4	-17.3	28	5.0
30	5,860	-8.0	-22.9	28	6.0
30	6,671	-13.1	-27.6	28	7.4
30	7,558	-19.2	-32.1	29	8.5
30	8,541	-26.1	-36.0	29	9.6
30	9,634	-34.7	-44.9	29	11.8
30	10,881	-44.8		29	12.7
30	12,336	-55.9		30	16.3
30	13,175	-61.4		31	16.5
30	14,119	-66.9		30	15.6
30	15,209	-70.8		32	13.0
30	16,529	-70.4		32	9.8
30	17,866	-66.4		03	2.0
30	18,880	-63.8		06	2.8
30	19,831	-61.6		08	4.7
30	20,769	-58.3		09	7.4
30	22,183	-55.3		10	7.5
29	24,026	-51.6		09	9.3
29	25,224	-49.9		09	9.7
28	26,687	-48.1		08	9.2
26	28,592	-45.5		08	8.5
14	31,328	-40.9			

* BROWNSVILLE, TX — 1013 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	7	23.6	21.4	12	.4
30	122	25.3	22.8	15	1.6
30	573	22.6	19.7	16	4.5
30	1,043	20.1	14.2	16	4.6
30	1,535	17.5	10.1	16	3.7
30	2,051	14.4	6.9	16	2.8
30	2,594	11.6	2.8	15	2.0
30	3,168	8.4	-1.2	15	1.5
30	3,778	5.1	-4.9	18	.8
30	4,427	1.5	-10.2	25	.6
30	5,123	-2.6	-15.0	27	.9
30	5,873	-7.0	-20.3	30	1.0
30	6,688	-11.8	-25.2	29	1.6
30	7,580	-17.7	-30.9	29	2.3
30	8,569	-24.5	-37.3	30	4.3
30	9,670	-33.0	-45.1	31	5.1
32	10,925	-43.3		32	6.7
32	12,387	-55.6		32	9.4
32	13,225	-62.2		32	10.0
32	14,162	-69.2		32	8.0
31	15,234	-74.9		31	6.0
26	16,530	-74.9		01	3.7
26	17,848	-69.1		06	4.5
24	18,653	-66.2		07	7.2
24	19,595	-63.4		09	9.5
24	20,723	-60.5		09	10.2
23	22,125	-56.8		09	11.6
23	23,968	-52.5		09	13.4
23	25,751	-50.6		09	13.8
19	26,612	-48.0		09	12.9
17	28,530	-44.7		08	13.9
5	31,292	-39.4			

BUFFALO, NY — 990 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	218	12.3	8.8	22	1.6
30	567	13.3	7.0	26	4.8
30	1,021	10.6	4.2	27	6.1
30	1,495	7.8	.9	27	7.4
30	1,993	5.6	-3.6	27	8.9
30	2,519	3.5	-7.6	28	9.9
30	3,077	.9	-10.8	28	11.0
30	3,669	-2.1	-14.6	28	12.4
30	4,302	-5.4	-18.0	28	13.4
30	4,979	-10.0	-23.4	28	14.3
30	5,707	-14.9	-27.4	27	15.0
30	6,496	-20.1	-33.0	27	16.9
30	7,359	-26.3	-37.4	27	17.3
30	8,314	-33.3	-42.6	27	19.7
29	9,377	-41.1	-46.8	27	20.7
29	10,592	-50.0		26	22.5
29	12,027	-56.1		27	20.8
29	12,875	-56.8		27	19.2
29	13,869	-57.9		28	16.6
29	14,996	-59.3		28	14.4
28	16,399	-59.8		28	11.4
28	17,796	-58.8		28	8.8
28	18,642	-57.3		28	6.9
26	19,613	-56.1		28	5.0
25	20,778	-54.1		27	3.4
25	22,232	-53.0		27	3.4
24	24,067	-51.1		28	2.5
23	25,256	-49.9		27	2.9
23	26,722	-47.8		28	2.8
21	28,625	-45.8		29	3.2
16	31,365	-41.7		26	3.8

CAPE HATTERAS, NC — 1017 MB

No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
30	4	19.7	17.8	26	.2
30	150	26.1	16.9	14	.1
30	394	19.0	13.1	24	.6
30	1,057	19.0	9.0	23	1.2
30	1,541	13.4	4.2	24	2.2
30	2,050	11.0	.7	24	3.7
30	2,586	8.4	-2.7	24	4.8
30	3,153	5.4	-7.1	25	6.0
30	3,756	2.9	-10.7	26	7.0
30	4,401	-.4	-15.4	26	7.4
30	5,091	-4.5	-19.0	26	8.1
30	5,835	-9.2	-23.9	26	8.9
30	6,642	-14.7	-27.8	25	10.3
30	7,524	-21.1	-34.5	25	11.7
30	8,496	-28.4	-39.5	25	13.0
29	9,579	-37.1	-47.8	25	14.7
29	10,813	-47.0		26	16.9
29	12,257	-57.5		26	20.4
29	13,093	-61.0		27	19.1
29	14,040	-65.0		27	15.4
28	15,147	-66.7		27	12.8
28	16,496	-65.8		27	7.8
28	17,861	-62.7		28	4.2
28	18,690	-60.2		25	1.3
28	19,656	-58.7		23	.4
27	20,807	-56.2		07	2.1
27	22,232	-53.8		08	5.0
25	24,090	-50.4		09	5.1
24	25,287	-49.0		09	4.8
19	26,758	-47.1		08	4.8
16	28,665	-45.7		09	4.5
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RAWINSONDE DATA

Average monthly values

SEPTEMBER 1970

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
CARIBOU, ME 990 MB						
SFC	30	991	7.7	4.8	25	1.6
1000	9	110	6.4	4.3		
950	28	460	4.2	2.6	29	4.3
900	30	859	1.3	.0	30	4.5
850	29	1,317	-1.7	-4.3	31	4.0
800	28	1,798	-3.8	-9.7	30	4.2
750	28	2,305	-6.3	-14.7	29	4.0
700	28	2,842	-9.2	-18.0	28	3.1
650	28	3,412	-12.4	-21.9	28	2.9
600	28	4,019	-16.4	-27.5	27	3.1
550	28	4,667	-20.9	-31.2	25	3.9
500	28	5,365	-25.8	-36.1	25	3.7
450	28	6,120	-31.4	-41.0	24	4.1
400	28	6,944	-37.4	-46.9	24	4.2
350	28	7,857	-43.3	-49.9	26	5.4
300	28	8,882	-47.2		27	8.0
250	28	10,086	-47.9		26	7.9
200	28	11,548	-45.6		25	8.9
175	28	12,437	-46.2		25	8.9
150	28	13,467	-47.4		25	8.6
125	28	14,662	-48.7		25	7.9
100	28	16,126	-48.3		25	7.0
80	28	17,587	-50.1		24	6.3
70	28	18,462	-50.2		24	6.0
60	28	19,468	-50.6		23	4.5
50	21	20,658	-50.9		21	4.2
40	19	22,118	-50.5		22	3.6
30	18	23,995	-50.1		21	2.9
25	14	25,188	-49.4		23	3.4
20	15	26,660	-48.6		23	2.1
15	11	28,562	-48.4		29	2.7
10	*	31,202	-48.5			

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
CENTREVILLE, AL 1001 MB						
SFC	30	140	17.9	16.4	03	1.3
1000	19	167	18.4	16.8	00	1.0
950	30	590	19.3	16.8	10	1.1
900	30	1,054	16.9	13.3	14	.7
850	30	1,540	13.9	7.7	17	.7
800	30	2,050	11.4	3.8	18	1.3
750	30	2,587	8.7	-1.3	16	2.8
700	30	3,155	5.5	-4.8	28	3.8
650	30	3,759	2.0	-9.5	28	4.2
600	30	4,408	-1.2	-14.4	27	5.8
550	30	5,092	-5.0	-17.9	27	5.8
500	30	5,834	-9.9	-21.6	28	6.8
450	30	6,639	-15.1	-27.4	28	8.6
400	30	7,520	-21.0	-33.6	27	10.6
350	30	8,495	-28.2	-39.9	28	12.1
300	30	9,580	-36.5	-48.4	28	15.2
250	29	10,818	-46.0		28	17.9
200	28	12,268	-56.3		29	21.0
175	28	13,107	-60.9		29	19.0
150	28	14,055	-65.1		29	16.4
125	28	15,162	-68.1		29	11.1
100	27	16,329	-68.8		31	6.5
80	27	17,347	-65.8		26	2.2
70	27	18,600	-64.8		24	4.9
60	24	19,585	-64.3		24	4.9
50	20	20,756	-63.3		24	4.9
40	24	22,244	-63.2		25	3.3
30	22	24,060	-61.8		24	1.8
25	21	25,245	-60.7		28	3.1
20	21	26,705	-48.4		31	3.8
15	14	28,615	-45.6		24	4.6
10	*	31,300	-42.2			

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
CHARLESTON, SC 1015 MB						
SFC	30	13	19.9	18..	45	.9
1000	30	143	21.8	18..	04	.7
950	30	588	19.7	14..	17	.8
900	30	1,053	16.8	12..	20	1.0
850	30	1,539	14.0	8.5	23	2.0
800	30	2,049	11.6	4.7	24	2.9
750	30	2,587	9.3	-1.1	25	3.6
700	30	3,156	6.6	-4.5	24	4.0
650	30	3,762	3.6	-8.5	25	5.0
600	30	4,408	-..	-12..	25	4.1
550	30	5,100	-3.9	-17..	25	7.1
500	30	5,846	-8.7	-22.5	26	8.2
450	30	6,654	-14.3	-25.9	25	8.7
400	30	7,538	-20.1	-32.4	26	10.0
350	30	8,517	-27.3	-39.0	26	11.7
300	30	9,605	-35.9	-47.5	26	15.9
250	30	10,845	-46.1		26	18.0
200	29	12,290	-57.0		27	17.6
175	29	13,126	-62.3		27	17.1
150	29	14,069	-66.3		27	14.1
125	29	15,170	-67.9		28	10.1
100	29	16,511	-67.2		28	6.5
80	29	17,866	-64.0		29	2.2
70	28	18,690	-61.2		30	.9
60	28	19,651	-59.5		08	3.2
50	28	20,801	-56.5		09	4.0
40	28	22,224	-53.8		09	4.8
30	28	24,086	-50.7		09	4.8
25	28	25,277	-49.3		09	4.9
20	26	26,747	-47.5		08	4.9
15	21	28,655	-45.4		08	7.3
10	12	31,399	-41.3		10	4.7

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
CHATHAM, MA 1015 MB						
SFC	30	.6	15.6	12.2	24	..
1000	29	143	16.4	..	26	3..
950	30	594	14.7	9.5	25	5..
900	30	1,028	1.3	3.	26	5.5
850	30	1,504	9.4	-2..	26	7..
800	30	2,006	6.2	-4..	26	8.5
750	30	2,537	6.8	-9.1	27	9..
700	30	3,098	2.7	-11.1	26	10..
650	30	3,694	.0	-16..	26	12..
600	30	4,331	-3.5	-19.4	26	13.6
550	30	5,014	-7.3	-..	26	14..
500	30	5,750	-12.2	-27.4	26	16..
450	30	6,547	-17.8	-31.3	26	17..
400	30	7,417	-24.1	-37..	26	18.5
350	30	8,380	-31.5	-41.9	26	19.6
300	30	9,449	-40.1	-46.3	26	22.2
250	30	10,668	-49.7		26	23.8
200	30	12,101	-57.6		26	24.7
175	30	12,940	-59.5		26	23.2
150	30	13,902	-60.5		26	18.8
125	30	15,036	-61.4		26	15.7
100	29	16,420	-59.9		26	10.6
80	28	17,814	-58.9		28	6..
70	28	18,656	-57.2		29	5..
60	28	19,634	-56.1		29	4..
50	28	20,798	-54.7		29	3..
40	28	22,230	-53.4		26	1..
30	28	24,078	-51.5		31	..
25	28	25,260	-49.7		32	..
20	27	26,733	-47.0		29	..
15	12	28,539	-44.9		27	3.8

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
CHIHUAHUA, MEXICO 659 MB						
SFC	30	1,438	28.0	14.5	36	.5
1000	9	110	6.4	4.3		
950	28	460	4.2	2.6	29	4.3
900	30	859	1.3	.0	30	4.5
850	29	1,317	-1.7	-4.3	31	4.0
800	28	1,798	-3.8	-9.7	30	4.2
750	28	2,305	-6.3	-14.7	29	4.0
700	28	2,842	-9.2	-18.0	28	3.1
650	28	3,412	-12.4	-21.9	28	2.9
600	28	4,019	-16.4	-27.5	27	3.1
550	28	4,667	-20.9	-31.2	25	3.9
500	28	5,365	-25.8	-36.1	25	3.7
450	28	6,120	-31.4	-41.0	24	4.1
400	28	6,944	-37.4	-46.9	24	4.2
350	28	7,857	-43.3	-49.9	26	5.4
300	28	8,882	-47.2		27	8.0
250	28	10,086	-47.9		26	7.9
200	28	11,548	-45.6		25	8.9
175	28	12,437	-46.2		25	8.9
150	28	13,467	-47.4		25	8.6
125	28	14,662	-48.7		25	7.9
100	28	16,126	-48.3		25	7.0
80	28	17,587	-50.1		24	6.3
70	28	18,462	-50.2		24	6.0
60	28	19,468	-50.6		23	4.5
50	21	20,658	-50.9		21	4.2
40	19	22,118	-50.5		22	3.6
30	18	23,995	-50.1		21	2.9
25	14	25,188	-49.4		23	3.4
20	15	26,660	-48.6		23	2.1
15	11	28,562	-48.4		29	2.7
10	*	31,202	-48.5			

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
COLD BAY, AK 997 MB						
SFC	28	30	6.2	4.4	28	3.0
1000	9	110	6.4	4.3		
950	28	460	4.2	2.6	29	4.3
900	28	859	1.3	.0	30	4.5
850	28	1,317	-1.7	-4.3	31	4.0
800	28	1,798	-3.8	-9.7	30	4.2
750	28	2,305	-6.3	-14.7	29	4.0
700	28	2,842	-9.2	-18.0	28	3.1
650	28	3,412	-12.4	-21.9	28	2.9
600	28	4,019	-16.4	-27.5	27	3.1
550	28	4,667	-20.9	-31.2	25	3.9
500	28	5,365	-25.8	-36.1	25	3.7
450	28	6,120	-31.4	-41.0	24	4.1
400	28	6,944	-37.4	-46.9	24	4.2
350	28	7,857	-43.3	-49.9	26	5.4
300	28	8,882	-47.2		27	8.0
250	28	10,086	-47.9		26	7.9
200	28	11,548	-45.6		25	8.9
175	28	12,437	-46.2		25	8.9
150	28	13,467	-47.4		25	8.6
125	28	14,662	-48.7		25	7.9
100	28	16,126	-48.3		25	7.0
80	28	17,587	-50.1		24	6.3
70	28	18,462	-50.2		24	6.0
60	28	19,468	-50.6		23	4.5
50	21	20,658	-50.9		21	4.2
40	19	22,118	-50.5		22	3.6
30	18	23,995	-50.1		21	2.9
25	14	25,188	-49.4		23	3.4
20	15	26,660	-48.6		23	2.1
15	11	28,562	-48.4		29	2.7
10	*	31,202	-48.5			

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
DAYTON, OH 984 MB						
SFC	30	299	11.7	10.0	25	.5
1000	30	389	15.3	8.0	27	2.6
950	30	1,046	13.1	5.0	30	4.2
900	30	1,525	10.7	.0	30	4.5
850	30	2,029	8.4	-4.0	29	4.9
800	30	2,560	6.0	-7.3	31	5.4
750	30	3,121	2.6	-10.9	29	6.4
700	30	3,718	-.2	-14.2	27	7.4
650	30	4,354	-3.6	-18.6	28	8.8
600	30	5,037	-7.5	-23.0	28	10.2
550	30	5,772	-12.2	-26.5	28	11.7
500	30	6,570	-17.6	-31.1	28	13.3
450	30	7,443	-23.8	-36.6	28	14.7
400	30	8,407	-31.2	-43.1	28	15.1
350	30	9,477	-39.7	-48.5	28	16.4
300	28	10,693	-48.8		28	19.6
250	28	12,133	-56.5		28	20.4
200	28	12,978	-58.0		29	21.5
175	28	13,945	-59.9		29	18.4
150	28	15,082	-61.3		28	15.3
125	28	16,466	-61.5		29	11.8
100	26	17,851	-60.3		29	6.6
80	26	18,887	-58.7		29	4.8
70	26	19,660	-57.0		29	3.4
60	26	20,820	-55.1		28	2.7
50	26	22,252	-53.0		26	1.6
40	26	23,981	-50.8		17	.4
30	26	25,931	-49.5		08	.8
25	26	26,779	-47.5		35	.5
20	26	28,689	-44.8		30	..
15	13	31,426	-42.1			

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
DEL RIO, TX 979 MB						
SFC	30	314	21.7	19.3	09	2.5
1000	30	570	21.3	18.1	14	5.2
950	30	1,039	19.3	15.1	17	7.1
900	30	1,530	17.1	12.1	17	8.5
850	30	2,046	14.3	8.9	16	9.1
800	30	2,590	11.5	3.9	17	9.1
750	30	3,163	8.0	-.1	20	9.3
700	30	3,772	4.7	-4.2	25	9.4
650	30	4,420	.8	-9.6	25	9.7
600	30	5,115	-3.1	-14.7	25	9.2
550	30	5,864	-7.4	-20.0	26	8.5
500	30	6,677	-12.4	-24.7	26	8.3
450	30	7,568	-18.2	-30.3	26	8.5
400	30	8,554	-25.2	-36.5	26	8.0
350	30	9,652	-33.7	-44.2	25	10.9
300	30	10,905	-43.7		27	14.0
250	30	12,366	-55.4		27	17.0
200	30	13,205	-61.7		27	17.4
175	30	14,145	-67.9		28	13.3
150	30	15,227	-73.1		28	9.8
125	28	16,531	-73.3		29	9.1
100	27	17,848	-69.0		04	2.2
80	27	18,851	-65.9		07	3.5
70	27	19,596	-62.5		09	4.4
60	27	20,732	-59.7		11	7.7
50	27	22,140	-56.7		09	9.1
40	27	23,981	-52.7		09	8.9
30	27	25,164	-50.8		09	9.2
25	27	26,625	-48.6		09	9.1
20	26	28,533	-45.5		08	10.0
15	14	31,249	-42.2		09	9.7

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
DENVER, CO 841 MB						
SFC	30	1,611	11.4	5.5	30	1.0
1000	30	1,638	10.8	9.9	24	1.0
950	30	1,570	10.0	6.6	23	1.0
900	30	2,039	3.0	-1..	24	1.0
850	30	2,579	4.8	-4..	25	1.0
800	30	3,148	0.2	-4..	27	1.0
750	30	3,743	2.7	-8.6	28	1.0
700	30	4,395	-1.5	-12.9	30	1.0
650	30	5,083	-5.9	-18.3	29	1.0
600	30	5,822	-10.9	-23.7	28	1.0
550	30	6,624	-16.2	-30.2	27	1.0
500	30	7,500	-22.8	-35.7	27	1.0
450	30	8,447	-29.8	-41.3	27	1.0
400	29	9,544	-38.2	-47.9	27	1.0
350	29	10,773	-48.8		27	1.0
300	29	12,210	-56.1		28	1.0
250	29	13,061	-59.0		28	1.0
200	29	14,017	-60.2		28	1.0
175	29	15,129	-60.8		28	1.0
150	29	16,478	-60.8		29	1.0
125	28	17,834	-60.2		31	1.0
100	28	18,653	-60.0		33	1.0
80	28	19,605	-60.7		32	1.0
70	27	20,748	-58.0		30	1.0
60	24	22,260	-55.4		28	1.0
50	24	24,008	-52.0		27	1.0
40	23	25,188	-50.8		27	1.0
30	23	26,649	-48.0		25	1.0
25	21	27,543	-46.3		25	1.0
20	14	28,543	-46.3		25	1.0
15	14	31,271	-44.2			

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
DODGE CITY, KS 792 MB						
SFC	30	791	20.0	1..	25	.0
1000	30	1,038	18.8	9.9	24	1.0
950	30	1,578	19.0	6.6	23	1.0
900	30	2,039	13.0	-..	24	1.0
850	30	2,579	9.8	-..	25	1.0
800	30	3,148	6.2	-4..	27	1.0
750	30	3,743	2.7	-8.6	28	1.0
700	30	4,395	-1.5	-12.9	30	1.0
650	30	5,083	-5.9	-18.3	29	1.0
600	30	5,822	-10.9	-23.7	28	1.0
550	30	6,624	-16.2	-30.2	27	1.0
500	30	7,500	-22.8	-35.7	27	1.0
450	30	8,447	-29.8	-41.3	27	1.0
400	29	9,544	-38.2	-47.9	27	1.0
350	29	10,773	-48.8		27	1.0
300	29	12,210	-56.1		28	1.0
250	29	13,061	-59.0		28	1.0
200	29	14,017	-60.2		28	1.0
175	29	15,129	-60.8		28	1.0
150	29	16,478	-60.8		29	1.0
125	28	17,834	-60.2		31	1.0
100	28	18,653	-60.0		33	1.0
80	28	19,605	-60.7		32	1.0
70	27	20,748	-58.0		30	1.0
60	24	22,260	-55.4		28	1.0
50	24	24,008	-52.0		27	1.0
40	23	25,188	-50.8		27	1.0
30	23	26,649	-48.0		25	1.0
25	21	27,543	-46.3		25	1.0
20	14	28,543	-46.3		25	1.0
15	14	31,271	-44.2			

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
EL PASO, TX 884 MB						
SFC	30	1,193	17.1	12.0	29	.1
1000						
950						
900						
850	30	1,515	17.6	9.7	14	1.0
800	30	2,042	14.9	7..	17	1.4
750	30	2,586	11.7	4.4	16	1.3
700	30	3,160	7.6	1..	17	1.3
650	30	3,767	3.6	-4.2	19	1.1
600	30	4,412	-.6	-8.6	23	1.7
550	30	5,103	-4.4	-14.4	23	2.6
500	30	5,843	-8.5	-22.3	24	4.3
450	30	6,658	-13.7	-29..	24	5.3
400	30	7,564	-20.0	-31.5	24	7..
350	29	8,523	-27.1	-37..	24	9..
300	29	9,612	-35.5	-46.0	24	13.7
250	29	10,855	-45.4		24	18.7
200	29	12,309	-55.6		24	24..
175	29	13,150	-60.5		25	22.3
150	29	14,100	-65.0		25	16.2
125	28	15,200	-70.2		25	11.6
100	28	16,516	-73.9		25	8.3
80	27	17,844	-74.8		01	..
70	27	18,653	-64.8		27	2.3
60	27	19,599	-62.0		08	5.0
50	27	20,734	-59.3		11	5.3
40	27	22,138	-56.4		10	4.5
30	18	23,975	-53.4		09	5.0
25	18	25,153	-51.7		08	5.3
20	17	26,608	-48.8		08	5.0
15	14	28,515	-46.1		09	5.1
10	9	31,203	-41.6			

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
ELY, NV 811 MB						
SFC	30	1,908	7.6	.9	20	2.8
1000						
950						
900						
850	30	2,024	11.5	3..	19	2.7
800	30	2,565	10.6	.7	18	3.6
750	30	3,136	9.7	-3..	19	4..
700	30	3,745	6.0	-5..	20	4.5
650	30	4,381	-2.6	-11..	21	4..
600	30	5,066	-7.1	-18..	21	4.9
550	30	5,803	-11.8	-24..	21	5.8
500	30	6,601	-17..	-30.9	21	5.5
450	29	7,464	-23.7	-37..	21	5.5
400	29	8,439	-31.2	-43.0	21	6.4
350	29	9,509	-39.9	-48.8	21	7.7
300	29	10,730	-48.8		21	9.7
250	29	12,174	-55.1		21	11.9
200	29	13,021	-57.9		21	13..
175	29	13,987	-60.6		21	11.2
150	29	15,114	-63.4		21	8..
125	29	16,480	-64.5		21	4.8
100	29	17,894	-63.7		21	2..
80	29	18,868	-62.3		21	.9
70	29	19,625	-61.6		21	.6
60	29	20,767	-58.4		21	..
50	29	22,177	-55.4		21	..
40	29	24,023	-52.9		21	.9
30	29	25,704	-51.2		21	.1
25	29	26,669	-49.9		21	..
20	29	28,553	-46.9		21	.8
15	29	31,318	-44.1			

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
EMPALME, MEXICO 1018 MB						
SFC	30	12	23.9	21.1	04	.7
1000	3	101	25.4	21.2	09	.7
950	30	552	24.1	17.3	14	2.3
900	30	1,025	21.7	12.9	16	3.4
850	30	1,519	18.8	9.9	15	4.2
800	30	2,037	15.8	6.1	17	4.2
750	30	2,583	12.9	1.6	17	4.3
700	30	3,159	9.2	-1.7	17	4.1
650	30	3,770	5..	-5.2	17	4.2
600	30	4,419	1.1	-9.7	19	3.5
550	30	5,114	-2.7	-15.9	21	3.3
500	30	5,863	-7.5	-21.9	23	4.1
450	30	6,676	-12.7	-26.6	22	4.9
400	30	7,564	-18.8	-32.0	22	5.4
350	30	8,548	-26.3	-39.9	22	5.6
300	30	9,644	-34.6	-48.4	22	12.4
250	30	10,889	-44.0		22	18.0
200	30	12,353	-54.4		23	19.3
175	30	13,199	-59.9		22	18.7
150	30	14,147	-64.1		23	17.0
125	30	15,245	-67.7		24	13.7
100	30	16,561	-71.4		25	9.6
80	30	17,889	-67.6		04	1.9
70	30	18,694	-65.4		08	4.4
60	30	19,638	-62.5		09	4.6
50	30	20,773	-59.4		11	6.1
40	30	22,181	-56.1		11	6.4
30	30	24,015	-53.1		09	6.1
25	30	25,194	-51..		09	6.3
20	29	26,661	-48.7		09	6.8
15	28	28,566	-45.7		09	7.1

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m.p.h.
FAIRBANKS, AK 988 MB						
SFC	30	135	5.1	1..	32	1.0
1000	30	240	11.4	9..	26	..
950	30	574	13.5	5.9	26	3.2
900	30	1,087	11.4	6.5	25	3..
850	30	1,582	7..	-.7	29	5..
800	30	2,109	6.8	-3..	27	5..
750	30	2,531	4.3	-4..	27	5.

RAWINSONDE DATA

Average monthly values

SEPTEMBER 1970

GLASGOW, MT — 935 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	696	9.5	2.8	10	.9
1000						
980						
900	30	1,114	16.2	2.2	26	1.7
850	30	1,498	14.3	-.8	29	4.4
800	30	1,907	11.1	-3.4	29	5.9
750	30	2,342	7.4	-5.6	30	6.8
700	30	2,806	3.6	-9.8	29	7.7
650	30	3,304	.2	-13.9	29	8.5
600	30	4,341	-3.6	-17.9	29	8.3
550	30	5,024	-8.0	-21.5	29	8.4
500	30	5,757	-13.0	-26.4	29	8.8
450	30	6,551	-18.8	-32.3	29	9.0
400	30	7,418	-25.1	-38.1	29	9.6
350	30	8,376	-32.9	-44.2	29	9.3
300	30	9,439	-41.5	-47.9	29	9.8
250	29	10,653	-50.6		30	10.0
200	29	12,080	-57.7		29	12.4
175	29	12,921	-58.4		29	13.3
150	29	13,889	-59.2		29	13.3
125	29	15,029	-60.3		29	13.0
100	29	16,418	-60.4		29	9.1
80	29	17,811	-59.5		30	6.0
70	29	18,649	-58.5		31	4.8
60	28	19,616	-58.1		31	3.1
50	28	20,768	-57.0		32	2.5
40	28	22,182	-56.4		31	2.4
30	28	24,021	-53.5		31	2.7
25	27	25,207	-51.9		30	2.4
20	24	26,655	-49.8		28	2.7
15	24	28,546	-48.0		27	3.6
10	11	31,221	-43.7		27	8.0

GRAND JUNCTION, CO — 854 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	1,472	13.6	3.7	12	2.4
1000						
980						
900						
850	29	1,516	16.0	3.8	12	2.7
800	30	2,030	14.9	2.5	13	2.5
750	30	2,573	11.9	.1	17	1.4
700	30	3,147	7.8	-2.5	22	2.1
650	30	3,753	3.1	-5.4	23	3.2
600	30	4,396	-1.8	-10.4	23	4.6
550	30	5,083	-6.6	-15.6	23	5.2
500	30	5,821	-11.2	-23.0	24	5.6
450	30	6,622	-16.7	-29.9	25	6.4
400	30	7,497	-23.0	-36.1	25	6.6
350	30	8,463	-30.5	-41.4	25	7.4
300	30	9,537	-39.0	-47.8	26	10.0
250	29	10,763	-48.0		25	13.4
200	29	12,207	-55.5		27	16.3
175	29	13,054	-58.1		25	15.4
150	29	14,018	-61.4		25	14.1
125	29	15,145	-64.4		26	10.3
100	29	16,501	-65.4		26	5.9
80	28	17,863	-63.8		27	2.5
70	28	18,685	-62.1		28	1.3
60	28	19,637	-60.4		34	.9
50	28	20,778	-58.3		01	1.2
40	28	22,184	-56.2		03	1.0
30	28	24,030	-52.5		04	.4
25	27	25,212	-51.2		32	.4
20	24	26,676	-49.2		21	1.1
15	24	28,576	-47.8		30	1.8
10	7	31,335	-42.5			

* GREAT FALLS, MT — 890 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	1,118	10.7	2.8	23	2.4
1000						
980						
900						
850	30	1,505	14.1	.2	25	4.0
800	30	2,014	11.0	-2.2	26	3.4
750	30	2,549	7.7	-5.7	27	3.9
700	30	3,114	4.2	-8.5	27	4.8
650	30	3,713	.5	-12.4	27	4.7
600	30	4,350	-3.7	-17.6	27	5.4
550	30	5,033	-8.0	-22.2	27	6.0
500	30	5,766	-13.0	-27.7	27	5.9
450	30	6,561	-18.8	-32.6	27	6.3
400	30	7,427	-25.5	-38.6	27	6.1
350	30	8,385	-32.6	-43.7	27	6.5
300	30	9,450	-41.0	-46.3	27	6.9
250	29	10,665	-50.5		28	6.4
200	29	12,095	-57.2		28	8.2
175	29	12,936	-58.8		27	9.1
150	29	13,904	-58.7		28	11.1
125	29	15,045	-60.5		28	8.8
100	29	16,430	-61.3		28	7.7
80	29	17,819	-59.7		29	5.1
70	28	18,654	-58.8		30	3.7
60	28	19,623	-58.3		30	3.1
50	27	20,772	-57.5		31	1.4
40	27	22,185	-56.6		32	1.9
30	25	24,015	-54.3		30	2.6
25	24	25,184	-52.7		28	3.3
20	23	26,639	-50.8		28	4.1
15	24	28,540	-48.8		26	2.6
10	6	31,259	-44.4			

GREEN BAY, WI — 992 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	210	8.7	5.6	29	1.4
1000						
980	30	573	11.8	3.9	30	3.6
900	30	1,024	10.1	-.3	30	4.7
850	30	1,497	7.9	-3.5	30	5.9
800	30	1,996	5.6	-6.5	29	6.7
750	30	2,522	3.5	-10.4	29	8.1
700	30	3,079	.7	-14.0	29	9.0
650	30	3,670	-2.6	-17.0	29	9.6
600	30	4,301	-5.9	-21.2	29	10.9
550	30	4,978	-10.0	-24.3	29	11.9
500	30	5,706	-14.6	-27.9	29	13.5
450	30	6,496	-20.0	-33.3	30	14.2
400	30	7,358	-26.5	-38.5	30	15.9
350	30	8,312	-33.5	-45.3	30	17.8
300	30	9,374	-41.5	-47.4	30	19.0
250	30	10,587	-49.9		31	18.0
200	30	12,021	-56.5		30	19.1
175	30	12,875	-57.2		30	18.7
150	29	13,850	-57.9		30	17.0
125	29	14,995	-59.4		30	13.2
100	29	16,390	-59.6		29	9.1
80	28	17,798	-58.8		30	6.8
70	28	18,639	-57.8		30	5.7
60	28	19,614	-56.9		29	4.1
50	28	20,779	-55.5		30	3.0
40	28	22,208	-53.5		29	2.5
30	27	24,071	-50.8		27	2.9
25	26	25,262	-49.5		26	3.4
20	26	26,726	-48.4		28	3.8
15	24	28,625	-45.9		27	4.7
10	12	31,358	-41.3		29	3.4

GREENSBORO, NC — 986 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	275	14.5	13.7	01	.6
1000						
980						
900	30	591	18.0	10.7	29	1.5
850	30	1,053	15.6	7.9	26	2.2
800	30	1,536	12.7	3.6	26	3.0
750	30	2,043	10.4	.0	26	4.6
700	30	2,578	7.7	-4.7	26	5.5
650	30	3,144	3.1	-9.9	26	6.1
600	30	3,747	2.5	-14.4	26	7.4
550	30	4,389	-1.1	-18.1	26	8.2
500	30	5,078	-5.0	-21.4	26	8.8
450	30	5,820	-10.0	-25.0	26	10.9
400	30	6,624	-15.5	-29.0	26	11.2
350	30	7,503	-21.7	-35.2	26	12.0
300	30	8,474	-29.1	-42.1	27	13.4
250	30	9,555	-37.5	-48.1	27	15.7
200	30	10,787	-47.5		27	19.2
175	30	11,528	-57.6		28	21.3
150	30	12,369	-60.8		28	19.9
125	30	13,469	-63.6		28	16.9
100	30	14,819	-65.5		28	14.5
80	30	15,132	-65.5		28	9.5
70	30	16,489	-65.0		28	4.7
60	30	17,859	-62.0		28	3.0
50	30	19,654	-58.3		27	1.3
40	30	20,808	-55.9		09	.9
30	30	22,240	-53.8		10	1.8
25	29	23,292	-49.4		09	3.6
20	29	24,710	-50.7		09	4.2
15	29	26,292	-49.4		09	4.4
10	14	28,190	-47.3		09	3.9

* GUAM, MARIANA IS. — 996 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	111	25.1	23.9	21	1.0
1000						
980	30	324	23.5	21.5	22	2.1
900	30	996	20.9	18.1	23	2.0
850	30	1,490	18.3	14.7	22	1.8
800	30	2,009	15.9	11.7	21	1.9
750	30	2,556	13.3	7.7	18	1.9
700	30	3,135	10.0	3.5	15	2.1
650	30	3,748	6.8	-.1	14	2.3
600	30	4,402	3.1	-4.8	14	3.3
550	30	5,103	-.9	-9.2	14	3.1
500	30	5,858	-5.4	-15.1	14	3.8
450	30	6,678	-10.2	-19.9	12	3.6
400	30	7,577	-15.7	-25.5	12	3.7
350	30	8,579	-22.5	-31.6	11	4.3
300	28	9,686	-30.7	-41.1	11	3.9
250	28	10,954	-40.9	-46.7	09	6.3
200	27	12,431	-53.5		09	7.5
175	26	13,278	-60.4		09	9.2
150	25	14,223	-68.2		09	9.7
125	23	15,292	-76.4		09	11.3
100	15	16,552	-80.6		08	11.8
80	15	17,838	-74.2		09	10.0
70	14	18,619	-70.1		10	10.7
60	14	19,543	-66.8		09	9.9
50	14	20,657	-63.0		09	11.6
40	14	22,044	-59.4		09	14.9
30	14	23,865	-55.2		09	20.1
25	14	25,032	-53.8		09	24.1
20	13	26,480	-50.3		09	28.4
15	12	28,381	-45.7		09	32.1
10	8	31,122	-40.9			

HILO, HI — 1014 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	10	22.2	19.9	25	1.2
1000	30	127	22.8	19.6	29	.9
980	30	574	19.9	17.5	04	1.6
900	30	1,039	16.9	14.2	05	2.5
850	30	1,525	14.2	11.2	05	2.9
800	30	2,035	11.8	8.9	06	3.3
750	30	2,575	11.0	-3.7	08	2.6
700	30	3,148	8.4	-9.4	09	1.8
650	30	3,757	4.9	-12.8	09	1.0
600	30	4,405	1.4	-17.4	09	.2
550	30	5,101	-2.3	-20.2	30	1.1
500	30	5,851	-7.0	-26.1	30	1.6
450	30	6,664	-12.3	-30.2	30	2.4
400	30	7,554	-18.5	-35.7	30	4.6
350	30	8,538	-25.8	-41.7	28	6.4
300	28	9,633	-34.1	-48.3	28	10.5
250	28	10,885	-43.6		27	15.6
200	27	12,351	-54.4		27	18.0
175	26	13,195	-59.9		27	17.3
150	25	14,144	-66.4		27	14.6
125	23	15,232	-72.6		27	9.0
100	15	16,552	-75.5		29	1.6
80	15	17,838	-70.6		68	5.4
70	14	18,619	-67.4		69	7.9
60	14	19,543	-64.9		69	10.4
50	14	20,657	-61.4		69	13.7
40	14	22,044	-58.4		69	15.0
30	14	23,865	-54.1		09	17.8
25	14	25,032	-51.5		09	19.3
20	13	26,480	-47.3		09	20.7
15	12	28,457	-45.0		09	19.9
10	5	31,190	-40.7			

HUNTINGTON, WV — 989 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	246	12.9	11.8	17	.2
1000						
980	30	586	16.1	8.7	27	1.5
900	30	1,044	13.9	6.0	29	3.0
850	30	1,524	11.2	2.3	30	4.0
800	30	2,029	8.9	-1.8	29	4.2
750	30	2,561	6.5	-6.0	28	5.4
700	30	3,124	3.7	-9.5	28	6.3
650	30	3,723	.4	-12.9	28	7.2
600	30	4,362	-2.6	-17.3	27	8.5
550	30	5,047	-6.8	-22.1	27	9.6
500	30	5,784	-11.6	-27.3	27	10.4
450	30	6,584	-16.7	-32.0	27	11.9
400	30	7,458	-23.0	-37.2	27	13.0
350	30	8,425	-30.4	-43.2	27	14.5
300	30	9,499	-38.9	-48.7	27	16.2
250	28	10,724	-48.4		27	18.4
200	27	12,165	-56.6		27	20.7
175	27	13,007	-58.9		28	20.7
150	27	13,970	-60.9		28	17.9
125	26	15,098	-63.3		28	14.2
100	26	16,470	-63.1		28	9.4
80	26	17,849	-61.0		29	5.1
70	26	18,683	-59.2		28	3.8
60	26	19,649	-57.1		28	2.4
50	26	20,809	-55.1		27	.9
40	26	22,240	-53.3		12	.6
30	26	24,099	-51.2		08	2.2
25	26	25,290	-49.6		08	2.3
20	26	26,762	-47.3		06	1.8
15	25	28,682	-44.6		09	1.0
10	5	31,425	-42.5			

* INTERNATIONAL FALLS, MN — 973 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	359	6.5	4.2	24	.9
1000						
980	30	555	9.8	4.9	26	3.1
900	30	1,005	9.3	1.4	28	6.1
850	30	1,477	7.4	-3.2	29	7.3
800	30	1,975	5.3	-6.6	29	8.8
750	30	2,500	2.6	-9.1	30	10.0
700	30	3,054	-.6	-13.3	29	10.8
650	30	3,644	-3.7	-16.3	30	12.2
600	30	4,272	-7.3	-19.4	30	13.9
550	30	4,944	-11.6	-23.4	30	15.2
500	30	5,669	-16.1	-29.4	30	15.9
450	30	6,454	-21.4	-33.9	30	17.8
400	30	7,312	-27.5	-39.7	30	19.8
350	30	8,282	-34.5	-44.7	31	21.4
300	30	9,319	-42.5	-48.6	30	22.1
250	28	10,528	-50.5		30	22.8
200	29	11,961	-56.3		30	21.2
175	29	12,809	-56.5		30	20.9
150	29	13,786	-57.8		30	18.2
125	29	14,935	-57.9		29	15.5
100	29	16,340	-58.4		30	12.9
80	29	17,751	-56.9		30	7.4
70	29	18,594	-56.4		30	6.1
60	29	19,574	-55.9		31	5.0
50	29	20,735	-55.4		30	3.8
40	29	22,159	-53.8		31	3.4
30	29	24,022	-51.6		30	2.6
25	28	25,208	-50.7		28	3.4
20	28	26,669	-48.7		26	3.8
15	27	28,566	-46.1		27	5.7
10	13	31,319	-42.6		28	5.8

* ISLE DEL CISNE — 1011 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	10	27.0	24.0	09	3.1
1000	30	109	27.0	24.1	09	3.9
980	30	562	23.3	21.6	09	6.1
900	30	1,034	20.7	16.2	10	7.2
850	30	1,527	17.6	12.6	10	7.3
800	30	2,044	15.0	8.0	10	7.4
750	30	2,588	12.1	3.2	10	6.9
700	30	3,163	8.9	-.7	10	6.4
650	30	3,773	5.4	-5.6	10	5.3
600	30	4,423	1.8	-11.9	11	4.6
550	30	5,120	-2.5	-16.1	11	4.0
500	30	5,870	-7.0	-20.1	11	3.1
450	30	6,684	-12.3	-22.8	11	2.1
400	30	7,574	-18.0	-28.5	08	1.9
350	30	8,562	-24.7	-35.5	02	2.0
300	30	9,662	-33.2	-42.7	35	3.2
250	28	10,918	-43.2		33	4.8
200	27	12,381	-55.2		31	6.4
175	26	13,221	-61.8		31	6.9
150	25	14,161	-68.1		30	7.7
125	23	15,238	-73.8		32	5.5
100	15	16,541	-73.1		03	5.1
80	15	17,858	-70.0		09	6.7
70	14	18,659	-67.7		09	8.7
60	14	19,594	-64.8		10	10.5
50	14	20,717	-60.8		09	12.5
40	14	22,115	-57.5		09	15.4
30	14	23,955	-52.6		09	18.0
25	14	25,138	-50.6		09	19.8
20	13	26,604	-47.5		09	23.3
15	12	28,530	-43.6		09	25.7
10	8	31,270	-40.5			

JACKSON, MS — 1005 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	100	18.6	18.0	10	.4
1000	30	143	19.1	16.4	11	.6
950	30	582	19.8	14.1	15	1.3
900	30	1,036	17.0	11.2	22	.3
850	30	1,532	14.4	7.6	29	1.2
800	30	2,043	11.8	1.5	27	1.3
750	30	2,581	9.2	-2.4	27	2.1
700	30	3,150	6.1	-6.6	28	3.1
650	30	3,754	2.8	-8.7	28	4.0
600	30	4,398	-.6	-12.2	28	5.4
550	30	5,088	-4.9	-18.2	28	6.2
500	30	5,832	-9.3	-23.5	28	6.9
450	30	6,639	-14.5	-27.5	28	8.3
400	30	7,520	-20.7	-33.0	28	10.6
350	30	8,498	-27.6	-39.9	29	12.7
300	30	9,584	-36.2	-47.4	28	16.2
250	29	10,826	-45.9		29	17.7
200	29	12,277	-56.2		29	20.8
175	29	13,116	-61.0		30	21.2
150	29	14,062	-65.7		30	16.6
125	29	15,161	-68.9		30	12.1
100	29	16,493	-69.4		30	6.7
80	28	17,838	-65.8		35	2.2
70	27	18,656	-62.8		03	2.0
60	27	19,610	-60.8		07	2.7
50	26	20,754	-57.9		09	5.0
40	24	22,169	-55.3		10	8.3
30	24	24,025	-51.9		09	6.6
25	23	25,212	-50.0		08	7.1
20	23	26,678	-48.1		09	7.3
15	21	28,585	-45.8		08	7.0
10	18	31,317	-42.1		08	5.8

JOHN F. KENNEDY INT. AP NY — 1016 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	5	16.4	11.2	25	1.0
1000	30	142	16.3	10.7	28	1.3
950	30	578	14.8	6.5	28	3.1
900	30	1,034	12.4	3.7	28	4.9
850	30	1,511	10.1	-1.6	28	6.4
800	30	2,014	8.2	-5.3	28	8.3
750	30	2,544	5.4	-8.0	27	9.4
700	30	3,105	2.4	-12.5	27	10.9
650	30	3,701	-.5	-15.4	27	12.3
600	30	4,336	-3.9	-18.9	27	13.9
550	30	5,019	-7.7	-21.9	26	15.8
500	30	5,754	-12.2	-26.4	26	17.1
450	30	6,551	-17.6	-29.3	26	18.2
400	30	7,422	-24.0	-35.9	26	19.4
350	30	8,385	-31.3	-42.9	26	21.0
300	30	9,456	-39.8	-48.6	26	23.0
250	29	10,676	-49.5		26	25.0
200	29	12,107	-57.9		26	26.7
175	29	12,940	-59.7		26	27.1
150	29	13,902	-60.9		26	22.0
125	29	15,034	-61.9		26	18.3
100	29	16,414	-61.8		26	12.6
80	28	17,838	-59.4		27	8.1
70	27	18,656	-57.8		26	5.7
60	25	19,619	-56.7		25	4.0
50	25	20,780	-55.3		24	2.7
40	25	22,209	-53.7		24	.8
30	24	24,066	-51.7		17	.6
25	23	25,251	-50.5		12	1.8
20	23	26,713	-48.2		14	1.6
15	22	28,643	-45.3		06	1.3
10	7	31,318	-42.1			

JOHNSTON IS., PACIFIC AREA — 1012 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	3	26.1	22.9	08	6.7
1000	30	109	25.1	22.3	08	7.2
950	30	558	21.3	19.5	08	8.2
900	30	1,026	18.4	15.5	08	8.6
850	30	1,515	15.6	11.2	08	7.7
800	30	2,029	13.4	6.9	08	6.4
750	30	2,571	11.3	.9	09	5.2
700	30	3,145	9.4	-7.8	10	3.8
650	30	3,757	6.4	-10.5	09	2.9
600	30	4,410	3.3	-14.2	08	2.0
550	30	5,110	-.7	-17.5	06	2.3
500	30	5,864	-5.6	-21.0	05	2.0
450	30	6,683	-10.7	-26.1	34	1.2
400	30	7,578	-16.9	-31.1	28	2.6
350	30	8,570	-23.9	-37.5	27	4.6
300	30	9,674	-32.2	-44.8	27	7.6
250	29	10,934	-42.2		26	10.0
200	29	12,405	-54.1		25	11.4
175	29	13,249	-60.7		26	11.3
150	29	14,191	-67.9		25	9.4
125	29	15,271	-74.1		25	5.4
100	28	16,555	-78.0		08	1.8
80	27	17,846	-72.4		09	6.6
70	26	18,638	-69.4		09	9.3
60	25	19,567	-65.9		09	12.5
50	25	20,685	-61.9		09	13.0
40	25	22,076	-58.9		09	15.9
30	25	23,902	-54.0		09	19.0
25	25	25,077	-52.3		09	20.7
20	24	26,530	-49.5		09	23.5
15	24	28,428	-46.7		09	26.7
10	19	31,145	-41.9		09	27.7
7	7	33,578	-38.5			

KEY WEST, FL — 1015 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	3	26.7	23.2	12	1.1
1000	30	131	26.7	23.1	13	1.8
950	30	584	23.0	20.6	14	2.9
900	30	1,055	20.1	15.7	15	2.3
850	30

RAWINSONDE DATA

Average monthly values

SEPTEMBER 1970

KODIAK, CAROLINE IS. — 1007 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	30	27.7	23.8	26	3.9
1000	30	93	26.4	22.6	26	4.8
950	30	545	23.0	20.6	25	7.9
900	30	1,016	20.3	16.7	26	8.7
850	30	1,508	17.7	12.7	27	8.5
800	30	2,016	15.4	9.8	28	7.9
750	30	2,542	12.6	6.4	28	7.5
700	30	3,089	9.7	2.9	28	6.1
650	30	3,661	6.3	-2.4	27	4.8
600	30	4,266	2.7	-6.3	28	3.3
550	30	4,914	-1.2	-11.2	27	2.3
500	30	5,608	-5.5	-14.9	26	2.5
450	30	6,369	-9.7	-21.2	26	1.3
400	30	7,188	-15.5	-27.7	17	1.9
350	30	8,086	-22.4	-32.4	07	2.1
300	30	9,087	-30.7	-40.3	09	5.4
250	30	10,265	-40.7	-50.4	06	9.9
200	30	12,444	-53.2		07	15.0
175	30	13,791	-60.1		07	16.7
150	30	15,386	-67.3		07	17.6
125	30	17,317	-74.0		08	14.8
100	29	19,683	-77.6		07	9.4
80	28	17,896	-71.8		08	5.8
70	28	18,694	-67.7		08	5.2
60	27	19,628	-64.9		08	4.8
50	26	20,752	-62.5		08	5.8
40	26	22,142	-58.9		09	10.5
30	26	23,982	-55.5		09	24.4
25	26	25,138	-52.2		09	30.1
20	22	26,598	-48.2		09	33.1
15	22	28,511	-44.1		09	34.7
10	19	31,265	-38.8		09	35.2

FAIRBANKS, AK — 1002 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	25	5	6.2	3.9	24	2.1
1000	25	61	6.2	1.5	22	1.7
950	25	440	6.0	-.4	19	2.6
900	25	881	3.1	-2.7	18	2.0
850	25	1,342	-.1	-4.7	14	2.1
800	25	1,825	-3.0	-7.8	14	2.1
750	25	2,334	-6.0	-11.3	15	2.7
700	25	2,871	-9.4	-15.4	16	2.9
650	25	3,440	-12.9	-19.8	17	3.8
600	25	4,046	-16.8	-24.8	16	4.7
550	25	4,694	-20.9	-29.8	16	5.2
500	25	5,392	-25.9	-35.1	16	5.5
450	25	6,146	-31.3	-39.4	16	5.6
400	25	6,971	-37.3	-44.6	17	6.7
350	25	7,883	-43.9		18	8.6
300	25	8,899	-50.9		17	7.2
250	25	10,076	-58.9		17	6.9
200	24	11,524	-69.5		18	4.6
175	24	12,400	-68.8		19	4.7
150	24	13,414	-68.6		18	4.6
125	24	14,681	-69.3		19	5.0
100	24	16,074	-69.5		20	4.5
80	24	17,534	-69.9		20	4.4
70	24	18,407	-69.9		21	4.9
60	24	19,414	-69.5		21	4.7
50	24	20,601	-51.3		21	5.4
40	24	22,051	-51.5		23	5.1
30	24	23,916	-51.6		23	6.3
25	24	25,102	-51.1		25	6.5
20	22	26,558	-50.6		24	6.4
15	22	28,428	-49.7		25	7.2
10	8	31,101	-47.7			

LAKE CHARLES, LA — 1015 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	5	20.4	18.2	05	1.5
1000	31	135	22.7	18.4	17	1.5
950	31	582	20.9	15.5	12	1.1
900	31	1,049	18.2	12.6	18	1.2
850	31	1,537	15.8	7.0	23	.9
800	31	2,050	13.3	2.6	30	1.2
750	31	2,591	11.6	-2.6	30	1.7
700	31	3,163	7.4	-5.2	29	2.0
650	31	3,770	4.4	-8.8	28	2.9
600	31	4,418	1.0	-13.8	28	3.2
550	31	5,112	-3.3	-16.6	28	4.2
500	31	5,859	-8.1	-21.5	28	4.1
450	31	6,670	-13.7	-26.3	29	4.3
400	31	7,556	-19.3	-31.7	29	5.3
350	31	8,539	-26.3	-37.8	29	10.4
300	30	9,632	-34.2	-45.2	29	12.6
250	30	10,881	-44.6		30	13.5
200	30	12,337	-55.1		30	17.3
175	30	13,176	-61.3		30	18.3
150	30	14,119	-67.6		30	16.2
125	30	15,207	-71.4		30	10.8
100	30	16,524	-71.6		32	4.9
80	30	17,854	-67.7		02	2.3
70	30	18,666	-63.7		06	3.2
60	29	19,617	-61.2		08	4.8
50	29	20,754	-58.5		09	6.3
40	29	22,167	-55.6		09	8.6
30	29	24,014	-52.2		09	9.4
25	29	25,199	-50.4		09	8.6
20	26	26,663	-48.4		08	8.7
15	26	28,568	-45.4		08	9.2
10	17	31,298	-41.3		09	10.0

LANDER, WY — 838 MB

Standard pressure surface mb	No of observations	Dynamic height meter	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	2,697	14.8	1.6	22	1.6
1000	30	2,031	15.2	-.2	26	.5
950	30	2,570	9.7	-2.4	26	1.6
900	30	3,139	5.8	-6.1	27	2.9
850	30	3,741	1.8	-9.9	26	4.8
800	30	4,381	-2.7	-14.8	26	5.8
750	30	5,066	-7.1	-21.1	26	6.4
700	30	5,802	-12.1	-27.3	26	5.3
650	30	6,599	-18.1	-34.1	26	6.8
600	30	7,468	-24.5	-37.9	26	7.8
550	30	8,429	-32.1	-43.2	26	7.6
500	30	9,495	-40.8	-49.1	29	8.4
450	30	10,711	-50.0		26	10.7
400	30	12,145	-56.8		26	13.6
350	30	12,988	-58.8		26	13.1
300	30	13,952	-60.5		27	12.7
250	30	15,082	-62.9		27	10.1
200	30	16,560	-63.6		28	6.9
150	30	17,825	-62.4		28	4.6
100	29	18,654	-60.6		29	2.8
80	29	19,615	-59.8		32	1.5
70	29	20,259	-58.9		33	1.4
60	29	20,737	-61.1		04	2.9
50	29	22,169	-56.7		32	.6
40	28	24,007	-53.7		34	1.4
30	28	26,030	-49.9		27	1.8
25	26	27,180	-50.3		29	1.8
20	26	28,511	-48.6		27	2.5
15	23	29,911	-48.9		27	3.4
10	9	31,189	-43.9			

KING SALMON, AK — 1016 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	30	24.3	21.4	05	4.1
1000	30	140	24.6	21.6	04	5.1
950	30	588	22.5	17.6	04	7.0
900	30	1,054	17.5	15.4	07	6.9
850	30	1,541	14.0	11.0	07	6.5
800	30	2,052	12.2	4.9	07	5.7
750	30	2,592	11.0	-9.0	08	5.1
700	30	3,165	9.6	-11.6	07	4.1
650	30	3,770	5.8	-15.0	07	3.1
600	30	4,420	2.0	-18.9	07	3.1
550	30	5,123	-1.7	-22.4	5	3.2
500	30	5,875	-6.1	-26.1	03	3.4
450	30	6,690	-11.8	-31.7	3	3.3
400	30	7,581	-18.5	-35.9	37	3.5
350	30	8,560	-23.9	-44.7	34	4.3
300	30	9,650	-34.6	-49.6	34	5.4
250	30	10,877	-44.3		3	7.8
200	30	12,369	-54.7		09	13.4
175	30	13,213	-60.1		09	14.1
150	30	14,163	-65.6		09	13.1
125	30	15,250	-70.9		09	11.8
100	30	16,560	-73.6		34	8.8
80	30	17,877	-70.3		08	4.3
70	30	18,677	-67.4		08	3.2
60	29	19,613	-64.6		04	2.9
50	29	20,737	-61.1		09	12.3
40	29	22,133	-56.3		09	15.2
30	29	23,962	-53.5		09	16.7
25	27	25,144	-50.9		09	17.7
20	26	26,604	-48.4		09	18.4
15	24	28,500	-46.3		09	18.3
10	22	31,234	-41.7		09	18.3

LITTLE ROCK, AR — 998 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	79	18.1	15.4	35	.5
1000	4	189	17.9	12.6		
950	30	593	19.6	11.9	17	.3
900	30	1,057	16.6	9.6	25	1.2
850	30	1,542	14.1	5.7	26	2.4
800	30	2,052	11.7	1.8	27	2.8
750	30	2,590	9.2	-1.5	27	3.2
700	30	3,159	6.3	-4.3	28	3.7
650	30	3,763	2.7	-7.4	29	4.3
600	30	4,407	-1.2	-11.2	30	4.2
550	30	5,096	-5.1	-16.5	29	5.1
500	30	5,839	-9.9	-20.3	29	6.5
450	26	6,643	-15.2	-26.9	29	8.1
400	26	7,523	-21.4	-34.2	29	9.6
350	28	8,497	-28.3	-42.8	29	12.1
300	28	9,581	-36.9	-47.5	29	16.0
250	28	10,818	-46.3		29	19.1
200	28	12,267	-56.2		29	23.2
175	28	13,107	-60.3		30	23.5
150	28	14,059	-64.2		30	18.6
125	28	15,167	-67.1		30	12.3
100	28	16,509	-68.1		31	7.7
80	28	17,859	-65.0		32	3.3
70	28	18,679	-62.3		35	2.7
60	28	19,635	-60.2		05	1.4
50	27	20,778	-57.1		09	2.3
40	27	22,200	-54.6		10	2.2
30	27	24,053	-51.9		09	3.2
25	27	25,240	-50.0		09	3.4
20	26	26,706	-48.3		08	4.7
15	26	28,610	-45.7		09	5.8
10	23	31,329	-42.4		09	4.7
7	5	33,724	-39.0			

LONGVIEW, TX — 1003 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	124	18.4	17.5	16	.3
1000	28	153	19.5	16.7	16	.4
950	30	594	20.5	14.0	17	1.7
900	30	1,060	17.9	11.3	20	1.1
850	30	1,547	15.0	7.4	18	1.1
800	30	2,059	12.9	2.7	31	1.7
750	30	2,599	10.2	-.5	31	2.7
700	30	3,170	6.9	-5.4	31	2.3
650	30	3,775	3.4	-8.6	32	2.8
600	30	4,420	-.1	-11.4	29	4.2
550	30	5,112	-4.2	-16.4	29	5.1
500	30	5,857	-8.8	-21.3	28	7.0
450	26	6,666	-13.9	-26.0	29	8.8
400	26	7,550	-19.9	-31.5	29	9.5
350	28	8,531	-26.9	-38.7	29	12.4
300	28	9,621	-35.4	-46.1	29	14.8
250	28	10,863	-45.3		29	18.4
200	28	12,317	-56.4		29	23.4
175	28	13,154	-61.8		30	22.8
150	28	14,097	-66.4		30	18.5
125	28	15,191	-69.6		30	12.2
100	28	16,517	-70.4		31	6.4
80	28	17,852	-66.4		35	2.3
70	28	18,666	-63.4		04	3.1
60	28	19,620	-60.6		08	3.9
50	27	20,763	-57.9		10	4.6
40	27	22,181	-55.2		10	4.4
30	27	24,032	-52.2		08	6.3
25	27	25,216	-50.2		09	6.9
20	26	26,681	-47.8		08	7.5
15	24	28,593	-45.4		09	7.1
10	21	31,321	-42.8		08	8.4

MCGRATH, AK — 989 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	103	3.5	.5	27	.4
1000	30	98	2.6	2.2	08	1.0
950	30	551	2.3	2.1	09	1.2
900	30	1,022	2.8	1.7	13	1.2
850	30	1,516	1.8	1.4	11	1.2
800	30	2,035	1.5	1.0	12	1.3
750	30	2,581	1.3	.8	13	.9
700	30	3,159	.9	.4	12	1.5
650	30	3,772	.6	.0	12	2.3
600	30	4,426	.2	-.4	11	2.7
550	30	5,127	-.8	-1.5	11	3.4
500	30	5,883	-4.9	-11.6	11	4.3
450	30	6,705	-9.7	-18.6	10	5.1
400	30	7,606	-15.2	-24.1	10	5.3
350	30	8,605	-21.8	-31.6	10	5.7
300	30	9,720	-29.5	-40.9	10	5.4
250	30	10,993	-40.0	-49.2	09	4.7
200	30	12,476	-52.7		09	4.1
175	30	13,325	-59.4		08	3.5
150	30	14,273	-67.0		08	3.5
125	30	15,355	-74.0		10	4.0
100	30	16,635	-78.6		10	3.0
80	29	17,927	-72.1		09	3.1
70	29	18,720	-68.3		09	3.2
60	29	19,652	-65.3		09	3.2
50	29	20,772	-62.3		10	4.4
40	28	22,163	-58.6		09	8.5
30	28	23,984	-54.7		09	23.7
25	23	25,163	-51.1		09	29.3
20	23	26,620	-47.5		09	29.9
15	18	28,549	-43.1		09	31.8
10	5	31,301	-37.1			

MAJURO, MARSHALL IS. — 1011 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	30	24.3	24.3	06	.5
1000	30	140	24.6	24.6	08	1.0
950	30	588	22.5	22.5	08	1.2
900	30	1,054	17.5	15.4	07	1.2
850	30	1,541	14.0	11.0	07	1.1
800	30	2,052	12.2	4.9	07	.5
750	30	2,592	11.0	-9.0	08	.4
700	30	3,165	9.6	-11.6	07	.4
650	30	3,770	5.8	-15.0	07	.4
600	30	4,420	2.0	-18.9	07	.4
550	30	5,123	-1.7	-22.4	5	.5
500	30	5,875	-6.1	-26.1	03	.4
450	30	6,690	-11.8	-31.7	3	.3
400	30	7,581	-18.5	-35.9	37	.3
350	30	8,560	-23.9	-44.7	34	.3
300	30	9,650	-34.6	-49.6	34	.4
250	30	10,877	-44.3		3	.6
200	30	12,369	-54.7		09	13.4
175	30	13,213	-60.1		09	14.1
150	30	14,163	-65.6		09	13.1
125	30	15,250	-70.9		09	11.8
100	30	16,560	-73.6		34	8.8
80	30	17,877	-70.3		08	4.3
70	30	18,677	-67.4		08	3.2
60	29	19,613	-64.6		04	2.9
50	29	20,737	-61.1		09	12.3
40	29	22,133	-56.3		09	15.2
30	29	23,962	-53.5		09	16.7
25	27	25,144	-50.9		09	17.7
20	26	26,604	-48.4		09	18.4
15	24	28,500	-46.3		09	18.3
10	22	31,234	-41.7		09	18.3

MEDFORD, OR — 969 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	401	11.8	8.8	19	.6
1000	30	568	14.6	9.2	25	.3
950	30	1,020	14.2	8.3	21	.5
900	30	1,507	12.7	4.1	11	.3
850	30	2,010	11.3	-.9	17	.7
800	30	2,552	8.4	-5.0	19	1.9
750	30	3,119	5.0	-9.9	21	1.3
700	30	3,720	1.7	-13.2	23	.7
650	30	4,360	-2.2	-17.5	24	1.4
600	30	5,040	-6.6	-20.7	24	1.8
550	30	5,783	-12.0	-26.5	24	3.3
500	30	6,581	-17.5	-31.5	25	4.5
450	30	7,451	-24.4	-37.2	26	3.7
400	30	8,413	-31.0	-44.2	26	4.6
350	30	9,481	-40.0	-51.2	27	4.4
300	30	10,702	-49.0		29	4.8
250	30	12,143	-55.0		28	5.6
200	30	12,989	-58.0		28	5.5
150	30	13,956	-60.1		27	5.3
125	30	15,090	-61.8		27	5.9
100	30	16,460	-62.6		26	4.2
80	30	17,850	-61.2		26	2.5
70	28	18,681	-60.3		28	1.3
60	28	19,644	-57.1		36	.4
50	28	20,792	-57.7		02	.6
40	27	22,204	-56.4		35	.7
30	27	24,042	-52.9		34	1.2
25	27	25,222	-52.2		36	1.6
20	26	26,674	-50.6		34	1.2
15	25	28,559	-47.8		29	1.2
10	23	31,279	-43.9		26	1.6

MERIDA, MEXICO — 1013 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	11	22.5	22.0	09	.4
1000	30	122	24.0	22.5	11	2.8
950	30	573	23.5	18.5	13	5.6
900	30	1,045	21.0	14.6	12	4.5
850	30	1,538	17.8	11.4	12	3.8
800	30	2,055	15.1	7.2	13	3.2
750	30	2,599	12.0	3.9	14	3.0
700	30	3,175	8.6	-.2	14	3.0
650	29	3,784	5.0	-4.0	14	2.8
600	29	4,434	1.4	-9.9	11	3.0
550	29	5,130	-2.4	-13.4	08	3.3
500	29	5,881	-6.8	-18.4	07	4.1
450	29	6,696	-11.5	-23.9	06	4.1
400	29	7,589	-17.4	-31.2	05	4.6
350	29	8,579	-24.4	-38.0	04	4.1
300	29	9,681	-32.9	-47.0	02	3.9
250	28	10,937	-43.2		34	3.9
200	28	12,402	-54.9		34	5.9
175	28	13,254	-60.9		34	6.5
150	28	14,188	-67.3		35	6.6
125	28	15,273	-72.6		36	6.5
100	28	16,574	-73.8		04	4.4
80	28	17,892	-68.7		08	6.5
70	28	18,699	-65.8		09	9.2
60	28	19,640	-63.3		09	9.7
50	28	20,772	-59.5		09	12.8
40	28	22,177	-56.6		09	13.7
30	28	24,019	-51.9		09	15.5
25	28	25,206	-49.8		09	17.5
20	23	26,674	-46.8		09	17.8
15	18	28,587	-43.8		09	18.3
10	5	31,318	-39.6			

MIAMI, FL — 1015 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	4	24.5	23.5	35	.5
1000	30	137	25.9	23.7	13	.9
950	30	589	22.8	21.1	15	3.6
900	30	1,059	19.8	17.2	16	2.8
850	30	1,551	16.9	13.1	17	2.3
800	30	2,067	14.2	10.1	18	2.1
750	30	2,610	11.3	6.7	18	1.8
700	30	3,184	8.1	2.6	21	2.1
650	30	3,794	5.0	-1.2	22	1.9
600	30	4,443	1.2	-5.7	23	2.2
550	30	5,139	-2.9	-10.8	24	2.3
500	30	5,888	-7.3	-15.6	27	1.9
450	30	6,702	-12.5	-21.8	29	2.1
400	29	7,591	-18.5	-27.2	31	2.1
350	29	8,578	-25.2	-33.4	32	2.8
300	29	9,675	-33.9	-41.7	31	3.1
250	28	10,926	-44.3		32	2.6
200	28	12,382	-56.3		32	4.1
175	28	13,219	-62.4		32	5.0
150	28	14,157	-68.2		32	6.2
125	28	15,240	-71.9		34	5.8
100	28	16,556	-70.8		35	4.2
80	28	17,893	-66.6		07	3.4
70	28	18,728	-64.6		08	5.7
60	28	19,656	-61.8		09	7.9
50	28	20,792	-58.5		10	10.4
40	28	22,203	-55.5		10	11.1
30	26	24,053	-51.6		09	12.7
25	26	25,242	-49.6		09	13.6
20	23	26,713	-46.7		09	13.2
15	19	28,631	-44.2		08	13.0
10	11	31,376	-40.3			

MIDLAND, TX — 918 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	874	17.0	14.7	16	.7
1000	30	576	21.1	19.5	13	1.3
950	30	1,045	19.2	16.9	14	3.5
900	30	1,536	17.4	13.1	14	5.3
850	30	2,053	14.9	10.1	14	4.5
800	30	2,598	12.3	4.9	15	2.5
750	30	3,174	9.2	-.1	15	.7
700	30	3,784	5.2	-2.7	30	1.0
650	30	4,434	1.3	-6.5	31	2.1
600	30	5,130	-2.6	-11.7	28	1.1
550	30	5,881	-6.7	-19.4	23	1.2
500	30	6,696	-11.7	-23.4	34	1.8
450	30	7,589	-17.3	-30.7	26	2.1
400	30	8,579	-24.4	-36.6	27	4.3
350	30	9,681	-33.2	-44.1	28	6.8
300	30	10,938	-43.1		30	6.4
250	30	12,401	-55.3		30	8.8
200	29	13,241	-61.7		30	11.4
175	29	14,180	-64.4		30	12.1
150	29	15,256	-66.6		31	11.5
125	29	16,545	-68.8		36	10.4
100	29	18,056	-66.3		07	5.4
80	29	19,598	-63.4		10	8.8
70	29	20,225	-60.9		12	11.3
60	29	20,905	-58.6		13	13.4
50	29	21,657	-56.2		14	15.2
40	28	22,603	-53.4		15	16.8
30	28	23,957	-52.8		17	18.2
25	28	25,139	-51.0		18	19.0
20	26	26,599	-48.6		18	19.5
15	24	28,505	-45.6		18	19.5
10	9	31,220	-41.3			

MONTERREY, MEXICO — 964 MB

| Standard pressure surface mb | No of observations | Dynamic height meters | Temperature (C) | Dew Point (C) | Resultant Wind Direction tens of deg | Result

RAWINSONDE DATA

Average monthly values

NASHVILLE, TN — 997 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	30	180	15.6	14.1	10	.3
1000	4	278	16.9	14.1		
950	30	693	17.8	11.8	21	1.3
900	30	1,154	14.9	7.9	26	2.0
850	30	1,636	12.4	3.0	29	2.9
800	30	2,143	10.2	-.3	29	3.4
750	30	2,677	7.6	-4.0	29	3.9
700	30	3,243	4.7	-8.8	29	4.4
650	30	3,844	1.5	-11.9	29	5.5
600	30	4,485	-1.8	-15.7	29	6.3
550	30	5,172	-5.9	-20.9	29	6.8
500	30	5,912	-10.9	-25.0	28	8.0
450	29	6,712	-16.4	-29.4	28	9.9
400	29	7,587	-22.8	-34.8	28	11.2
350	28	8,565	-30.0	-41.4	28	12.5
300	28	9,531	-38.4	-47.5	28	13.0
250	28	10,759	-47.9		28	17.4
200	28	12,202	-56.6		28	22.1
175	28	13,042	-60.1		29	21.2
150	28	13,947	-62.9		28	17.4
125	28	15,113	-65.3		29	13.8
100	28	16,468	-65.8		29	8.7
80	28	17,830	-63.0		30	3.9
70	28	18,657	-61.3		31	2.4
60	28	19,618	-59.2		30	.6
50	28	20,769	-56.4		10	.5
40	27	22,150	-54.7		13	1.3
30	27	24,145	-51.5		08	2.5
25	26	25,233	-51.0		09	3.7
20	25	26,702	-47.5		08	2.4
15	21	28,621	-45.7		08	4.6
10	9	31,339	-42.9			
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NOME, AK — 1001 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	5	6.3	1.8	04	1.9
18	57	6.6	1.4	03	1.3
30	431	5.5	1.4	07	2.6
30	871	2.9	-.3	11	2.2
30	1,331	-.4	-3.2	13	2.2
30	1,814	-3.2	-6.4	14	2.3
30	2,322	-6.1	-10.4	14	2.5
30	2,859	-9.7	-14.4	14	2.6
30	3,428	-13.0	-19.0	14	3.0
30	4,034	-16.8	-22.0	12	2.5
30	4,682	-21.0	-25.6	14	2.5
30	5,379	-25.9	-30.9	15	2.7
30	6,134	-31.0	-37.4	14	3.2
30	6,959	-37.1	-43.5	15	3.2
30	7,871	-44.1		15	3.3
29	8,888	-50.9		15	4.5
29	10,063	-53.9		17	4.4
29	11,513	-49.3		18	3.4
29	12,390	-48.8		18	2.8
29	13,404	-48.6		19	3.7
29	14,602	-49.0		19	3.8
29	16,065	-49.6		21	3.5
28	17,527	-49.8		20	3.6
28	18,900	-50.3		20	4.5
28	19,406	-50.6		21	4.4
28	20,594	-50.9		21	4.7
28	22,045	-51.0		22	5.2
28	23,916	-51.2		23	6.0
28	25,101	-51.0		24	6.6
26	26,553	-50.3		25	5.8
24	28,435	-49.7		24	6.6

NORTH PLATTE, NE — 920 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	847	9.2	6.8	07	.6
30	1,031	14.6	8.5	21	.6
30	1,216	15.0	6.3	24	2.9
30	2,028	12.6	2.7	25	3.2
30	2,567	10.0	-2.1	27	3.6
30	3,138	6.5	-5.4	30	3.7
30	3,742	2.4	-8.4	30	4.7
30	4,383	-2.1	-13.4	30	4.6
30	5,069	-6.6	-19.3	30	4.6
30	5,807	-11.3	-24.7	29	5.7
30	6,607	-16.8	-29.7	28	8.2
30	7,481	-23.3	-35.2	28	9.1
30	8,447	-30.8	-41.6	28	9.7
30	9,519	-39.2	-47.4	27	12.5
30	10,744	-48.5		28	14.8
30	12,183	-56.5		28	17.9
30	13,027	-58.5		28	17.3
30	13,991	-61.3		28	15.4
30	15,115	-63.8		28	13.6
30	16,480	-64.2		29	9.0
30	17,851	-62.9		29	5.8
30	18,665	-60.9		30	4.3
28	19,640	-59.4		32	2.0
28	20,787	-57.3		32	1.9
28	22,210	-54.8		35	1.0
26	24,066	-51.5		25	.4
26	25,254	-50.3		24	1.1
26	26,717	-48.3		28	1.3
25	28,629	-45.7		27	2.0
18	31,361	-41.0		29	1.0
5	33,869	-37.1			

OAKLAND, CA — 1014 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	6	14.7	12.3	24	.4
30	121	14.9	11.4	23	1.1
30	555	16.0	5.7	23	2.1
30	1,017	17.7	1.5	23	1.6
30	1,504	16.1	-1.5	23	1.6
30	2,017	13.4	-4.5	21	1.9
30	2,557	10.3	-7.4	20	1.7
30	3,126	6.6	-11.2	20	1.2
30	3,730	2.6	-13.8	20	1.3
30	4,373	-1.6	-17.4	21	1.6
30	5,059	-6.1	-21.7	23	1.5
30	5,798	-11.0	-26.4	28	1.8
30	6,599	-16.6	-32.5	31	2.2
30	7,473	-23.3	-38.7	31	3.1
30	8,438	-31.0	-43.0	30	3.4
30	9,508	-40.0	-50.5	30	4.8
30	10,728	-48.9		30	5.8
29	12,172	-55.1		28	7.1
29	13,019	-58.2		27	7.1
29	13,984	-60.8		27	6.3
29	15,110	-63.7		26	5.3
29	16,475	-64.4		26	3.4
29	17,841	-63.3		25	1.3
29	18,651	-60.0		01	.7
29	19,616	-59.0		05	1.3
29	20,766	-57.1		08	2.2
29	22,186	-54.5		08	2.2
28	24,043	-51.9		07	1.6
28	25,229	-50.4		08	1.8
26	26,696	-48.6		35	1.1
25	.9	23	28,613	-45.8	29	1.1
13	31,360	-41.4		26	1.4

OMAHA, NE — 970 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	403	14.1	9.5	13	.5
30	573	15.5	7.8	16	1.5
30	1,033	15.1	4.1	24	2.4
30	1,516	13.5	3.5	27	3.5
30	2,025	10.6	.3	27	4.1
30	2,560	7.6	-4.0	28	4.2
30	3,126	4.3	-6.9	28	4.5
30	3,725	.9	-11.6	29	5.4
30	4,365	-2.7	-16.1	26	6.1
30	5,049	-6.7	-20.8	29	6.7
30	5,787	-11.4	-28.0	28	7.5
30	6,587	-16.7	-31.9	28	8.5
30	7,461	-23.4	-37.2	28	9.7
30	8,426	-30.8	-43.4	28	10.0
30	9,498	-39.5	-49.1	29	12.1
30	10,720	-49.4		29	15.0
29	12,151	-57.1		29	18.8
29	12,992	-59.2		29	18.4
29	13,954	-61.0		29	16.6
29	15,080	-63.4		29	13.1
29	16,448	-63.8		29	9.6
30	17,821	-62.0		30	6.3
31	18,651	-60.0		30	4.4
31	19,616	-59.0		31	2.9
31	20,766	-57.1		31	2.1
30	22,186	-54.5		30	1.4
25	24,043	-51.9		25	1.0
25	25,229	-50.4		27	1.2
28	26,696	-48.6		28	1.6
29	28,613	-45.8		29	1.1
26	31,360	-41.4		26	1.4

PAGO PAGO, AMERICAN SAMOA — 1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	30	5	28.9	21.2	09	3.7
1000	30	118	25.4	19.6	09	3.6
950	30	568	21.6	17.6	08	3.7
900	30	1,053	18.0	14.6	07	2.9
850	30	1,523	15.7	8.9	10	1.7
800	30	2,037	13.9	3.4	16	1.1
750	30	2,580	12.4	-1.6	18	.8
700	30	3,156	7.7	-7.6	28	.9
650	30	3,768	6.7	-13.1	29	3.1
600	30	4,421	3.1	-16.0	29	3.4
550	30	5,120	-1.1	-20.4	30	3.6
500	30	5,873	-6.1	-25.0	29	4.3
450	30	6,690	-10.9	-29.3	28	5.0
400	30	7,586	-16.3	-34.4	28	6.3
350	30	8,581	-23.1	-39.5	29	7.5
300	30	9,687	-31.8	-47.2	28	8.5
250	30	10,949	-41.9		27	9.0
200	30	12,421	-53.7		27	8.4
175	30	13,267	-60.4		27	10.0
150	30	14,210	-67.7		26	8.8
125	30	15,288	-74.7		27	8.0
100	30	16,566	-79.6		28	7.0
80	30	17,843	-75.1		27	6.5
70	30	18,669	-70.0		26	5.6
60	30	19,595	-65.9		27	2.3
50	30	20,679	-59.8		07	2.7
40	30	22,088	-55.9		08	4.4
30	28	23,931	-53.4		09	11.8
25	27	25,167	-52.5		08	14.5
20	24	26,558	-49.1		09	15.3
15	23	28,460	-45.2		08	14.0
10	16	31,208	-38.7		09	11.7

PEORIA, IL — 994 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	200	12.1	9.2	05	.3
30	586	15.9	6.2	26	1.5
30	1,045	14.0	3.7	28	3.2
30	1,525	11.6	-.7	29	5.0
30	2,029	9.1	-2.5	29	6.3
30	2,561	6.2	-6.2	29	6.7
30	3,124	3.2	-9.0	29	7.3
30	3,722	-.0	-12.6	29	8.5
30	4,359	-3.1	-18.0	29	9.0
30	5,042	-7.3	-21.2	29	10.0
30	5,778	-12.0	-27.0	30	10.9
30	6,577	-17.3	-31.4	30	11.5
30	7,448	-23.9	-38.5	29	12.7
30	8,411	-31.4	-45.1	30	14.0
29	9,483	-39.9	-50.4	30	15.6
29	10,704	-49.5		30	17.8
29	12,136	-57.3		30	20.8
29	12,977	-59.1		29	19.4
29	13,941	-60.5		29	16.6
29	15,071	-62.4		29	14.6
29	16,445	-62.6		29	9.2
28	17,822	-61.1		29	6.2
28	18,655	-59.5		30	4.4
28	19,623	-58.2		31	2.6
28	20,778	-56.1		30	1.8
27	22,201	-53.6		25	.7
27	24,063	-51.1		28	1.2
26	25,249	-49.7		26	1.2
26	26,716	-47.8		25	1.0
25	28,629	-45.2		29	1.2
24	31,355	-41.5		24	1.4

PITTSBURGH, PA — 975 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	359	11.2	8.8	25	1.3
30	582	13.9	8.1	27	3.2
30	1,037	12.3	4.1	28	5.3
30	1,515	9.8	-.7	28	6.2
30	2,017	7.5	-2.7	28	7.3
30	2,546	4.8	-6.0	29	8.4
30	3,106	2.0	-10.7	28	9.3
30	3,701	-1.2	-12.1	28	9.9
30	4,336	-4.2	-16.7	27	11.2
30	5,017	-8.0	-21.5	27	13.0
30	5,751	-12.4	-26.4	27	15.1
30	6,548	-18.0	-31.8	27	16.3
30	7,417	-24.3	-36.6	27	17.3
30	8,379	-31.9	-42.9	27	18.7
29	9,444	-40.3	-49.2	27	19.4
29	10,662	-49.8		26	21.6
28	12,102	-56.9		27	23.9
28	12,944	-58.5		27	22.3
28	13,910	-59.8		27	17.7
28	15,045	-61.2		27	14.2
28	16,428	-61.7		28	10.2
28	17,818	-60.0		28	5.8
28	18,660	-58.8		28	3.7
28	19,633	-56.9		28	2.2
28	20,796	-55.2		28	1.2
28	22,219	-53.5		20	.6
28	24,076	-51.5		10	1.4
28	25,262	-49.7		16	.3
28	26,738	-48.0		32	1.1
28	28,653	-45.5		31	.6
28	31,395	-41.7			

PONAPE, CAROLINE IS. — 1005 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	39	28.3	24.1	27	.7
30	81	26.8	22.8	28	.8
30	533	23.3	20.5	26	1.8
30	1,005	20.5	17.0	27	3.1
30	1,498	17.8	13.5	27	3.2
30	2,021	15.4	11.0	28	3.0
30	2,562	13.0	6.7	28	2.6
30	3,140	9.9	2.3	30	1.2
30	3,753	6.5	-1.1	36	.6
30	4,407	2.8	-4.3	08	.7
30	5,106	-1.0	-7.8	09	2.3
30	5,862	-5.4	-12.1	09	4.2
29	6,683	-9.8	-17.6	10	6.0
29	7,584	-15.0	-24.4	10	5.8
28	8,583	-21.8	-32.4	08	6.5
28	9,697	-30.1	-41.2	07	7.6
28	10,949	-40.4	-49.9	06	8.2
28	12,449	-52.8		05	9.0
28	13,298	-59.6		06	9.9
28	14,243	-67.1		07	9.1
28	15,327	-73.8		08	8.1
28	16,609	-78.5		08	4.1
28	17,903	-71.2		09	4.3
28	18,660	-67.8		10	3.6
28	19,634	-65.1		09	2.7
28	20,754	-62.2		09	4.0
27	22,244	-53.0		09	9.7
27	24,108	-51.2		09	24.8
25	25,289	-49.6		09	29.6
24	26,761	-46.9		09	31.4
24	28,665	-44.9		09	32.9
21	31,400	-40.3			

PORTLAND, ME — 1013 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	20	10.4	8.0	26	1.3
29	133	12.8	8.8	27	2.1
30	561	12.6	5.6	27	3.9
30	1,013	10.7	2.4	26	5.4
30	1,488	8.1	-2.4	26	7.0
30	1,986	4.1	-6.9	26	8.7
30	2,513	4.0	-9.7	26	11.2
30	3,071	1.2	-13.1	26	12.8
30	3,664	-2.3	-15.1	26	14.3
30	4,295	-5.8	-19.9	26	16.4
30	4,973	-9.4	-25.1	25	18.7
30	5,703	-13.8	-28.3	25	20.7
30	6,496	-18.9	-32.6	25	22.8
30	7,363	-25.2	-38.1	25	25.0
30	8,322	-32.2	-42.8	25	26.7
30	9,388	-40.8	-45.1	25	28.7
30	10,605	-49.5		25	29.6
30	12,040	-56.7		25	27.6
30	12,886	-57.4		25	23.5
30	13,859	-57.6		25	21.5
30	15,006	-59.1		25	16.1
30	16,405	-58.6		26	12.1
29	17,814	-57.4		25	8.2
29	18,664	-56.4		26	6.4
29	19,644	-55.1		25	5.3
27	20,811	-54.6		25	3.2
27	22,244	-53.0		26	2.5
27	24,108	-51.2		27	2.7
25	25,289	-49.6		28	2.9
24	26,761	-46.9		30	3.3
21	28,665	-44.9		28	4.7
14	31,400	-40.3			

QUILLAYUTE, WA — 1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	30	58	11.1	10.3	13	.3
1000	29	144	12.4	10.7	09	.6
950	30	592	12.5	7.9	16	1.2
900	30	1,065	11.5	3.1	21	1.4
850	30	1,562	10.1	-.1	20	2.2
800	30	2,085	7.9	-4.6	21	2.5
750	30	2,635	5.4	-7.0	21	3.5
700	30	3,218	2.2	-10.9	22	4.2
650	30	3,841	-.9	-12.6	22	5.4
600	30	4,506	-4.5	-17.8	23	6.0
550	30	5,216	-8.4	-21.1	23	6.2
500	30	5,979	-13.0	-26.2	24	7.5
450	30	6,795	-18.3	-31.9	24	9.1
400	30	7,693	-24.7	-37.7	24	8.5
350	30	8,684	-32.0	-42.5	24	8.7
300	30	9,780	-40.4	-49.0	24	9.8
250	30	10,999	-49.5		25	9.8
200	30	12,384	-56.9		26	11.4
175	30	13,126	-58.7		26	11.9
150	30	13,893	-59.3		26	11.1
125	30	15,032	-60.5		26	10.0
100	30	16,422	-60.0		26	7.4
80	30	17,819	-59.0		25	5.3
70	30	18,658	-58.4		25	4.2
60	30	19,631	-57.2		27	3.0
50	30	20,765	-56.7		29	1.2
40	30	22,188	-56.2		32	.6
30	28	24,038	-54.4		36	1.4
25	28	25,209	-53.1		31	1.0
20	28	26,654	-51.3		32	2.8
15	24	28,564	-48.8		33	2.6
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RAPID CITY, SD — 907 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	966	11.2	3.1	32	1.4
28	1,034	12.7	3.4	31	1.8
30	1,514	14.9	1.7	28	3.7
30	2,025	12.6	-1.9	28	3.5
30	2,564	9.3	-5.5	29	3.3
30	3,131	5.5	-8.5	29	4.1
30	3,733	1.3	-11.0	29	5.0
30	4,372	-3.2	-15.6	29	5.8
30	5,055	-7.6	-20.7	30	6.9
30	5,790	-12.5	-26.8	29	7.1
30	6,586	-18.1	-30.5	29	7.8
30	7,455	-24.6	-37.3	29	8.5
30	8,415	-32.3	-43.8	28	9.1
30	9,480	-40.9	-50.1	27	10.4
30	10,696	-50.0		28	13.3
30	12,129	-57.2		28	15.0
30	12,970	-58.9		28	15.2
30	13,934	-60.5		28	13.9
30	15,063	-62.8		28	11.7
30	16,436	-63.1		29	9.0
30	17,812	-61.7		30	5.7
30	18,642	-60.1		30	4.2
30	19,607	-59.2		31	2.8
30	20,753	-57.8		31	2.0
30	22,166	-56.2		31	1.6
28	24,015	-52.6		29	1.4
28	25,196	-51.3		27	1.7
27	26,651	-49.2		26	2.9
25	28,550	-46.6		27	2.4
13	31,277	-41.7			

ST CLOUD, MN — 981 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	316	8.0	5.6	32	.3
30	580	12.7	4.8	24	3.1
30	1,034	12.1	1.5	26	4.7
30	1,511	9.5	-1.4	28	4.9
30	2,013	7.3	-5.6	28	5.7
30	2,542	5.0	-9.2	29	7.9
30	3,102	2.1	-13.4	29	9.4
30	3,697	-.9	-15.8	29	10.2
30	4,331	-4.6	-19.2	30	10.8
30	5,011	-9.1	-22.2	30	12.4
30	5,742	-13.7	-27.1	30	14.6
30	6,534	-19.3	-32.0	30	15.5
30	7,399	-25.8	-38.7	30	17.1
30	8,355	-33.1	-44.4	30	17.8
30	9,417	-41.5	-48.6	29	18.1
30	10,630	-50.4		30	20.3
30	12,059	-58.0		30	21.8
30	12,899	-58.4		29	20.1
30	13,867	-59.5		29	19.3
30	15,005	-60.6		30	15.7
30	16,393	-60.4		30	11.4
30	17,785	-59.4		30	7.7
30	18,624	-58.3		30	6.4
29	19,593	-57.1		31	5.1
29	20,750	-56.0		30	2.7
29	22,173	-54.7		29	2.7
29	24,025	-52.1		28	2.7
29	25,210	-50.7		28	2.8
29	26,670	-48.8		26	4.0
28	28,572	-46.0		26	4.7
16	31,348	-41.7		27	4.3

ST PAUL ISLAND, AK — 1001 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	10	5.8	3.8	30	3.0
15	84	6.2	4.9	31	4.4
30	435	3.5	2.1	31	4.0
30	872	.7	-.7	31	3.9
30	1,329	-1.6	-5.9	32	3.8
30	1,810	-4.0	-11.0	32	3.4
30	2,317	-6.7	-15.5	32	3.3
30	2,853	-10.1	-19.9	32	2.9
30	3,421	-13.3	-24.0	32	2.6
30	4,026	-16.9	-28.1	32	2.3
30	4,673	-21.2	-32.3	31	2.0
30	5,370	-26.1	-36.9	31	2.5
30	6,124	-31.4	-42.1	30	2.5
30	6,948	-37.3	-45.8	30	3.0
31	7,860	-43.5		31	3.9
30	8,881	-48.8		28	4.8
28	10,079	-49.8		28	6.9
28	11,544	-47.2		28	8.4
28	12,428	-47.2		28	8.4
29	13,445	-47.8		28	8.4
29	14,647	-48.5		28	7.4
29	16,112	-49.2		27	6.0
29	17,573	-49.9		26	4.8
29	18,445	-50.3		26	4.6
29	19,451	-50.6		25	4.0
29	20,638	-51.3		24	4.4
29	22,094	-50.7		24	4.1
28	23,976	-49.8		22	3.9
28	25,163	-49.8		21	4.4
28	26,626	-49.2		24	4.7
24	28,530	-47.1		24	4.6
10	31,261	-44.6			

SALEM, IL — 997 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C +	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
30	174	12.8	10.8	09	.9
7	188	13.7	9.9		
30	586	17.3	7.7	23	1.6
30	1,046	15.0	5.4	28	2.3
30	1,527	12.5	2.0	30	3.6
30	2,034	9.8	-2.9	31	4.1
30	2,568	7.2	-6.6	31	4.6
30	3,134	4.6	-10.2	30	5.1
30	3,733	1.4	-14.3	30	6.0
30	4,374	-2.0	-17.0	29	6.8
30	5,060	-6.2	-21.4	29	7.4
30	5,799	-11.2	-25.9	29	8.9
30	6,600	-16.6	-30

RAWINSONDE DATA

Average monthly values

SEPTEMBER 1960

SALEM, OR — 1009 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	81	11.0	9.7	28	.4
1000	30	138	13.7	11.1	34	.6
950	30	568	13.6	9.1	01	1.8
900	30	[illegible]	13.2	[illegible]	08	.6
850	30	1,503	11.5	[illegible]	20	.9
800	30	[illegible]	9.7	[illegible]	23	2.3
750	30	2,564	7.2	-6.9	22	3.1
700	30	3,107	3.9	-10.8	23	3.5
650	30	3,706	.8	-14.3	23	3.8
600	30	4,344	-3.1	-18.0	24	3.8
550	30	5,008	-7.3	-20.7	25	4.3
500	30	5,703	-12.2	-20.7	25	4.4
450	30	6,460	-17.9	-26.3	26	4.6
400	30	7,300	-24.4	-38.4	26	5.4
350	30	8,391	-32.0	-40.3	25	5.1
300	30	9,648	-40.7	-51.6	26	4.3
250	30	[illegible]	-49.4		29	5.3
200	30	12,114	-56.5		29	5.7
175	30	12,957	-58.8		28	6.7
150	30	13,921	-60.2		28	7.7
125	29	15,056	-61.3		28	5.8
100	26	[illegible]	-62.1		28	4.5
80	26	17,842	-60.4		29	3.2
70	26	18,657	-59.5		28	2.3
60	26	19,624	-58.6		28	.7
50	26	[illegible]	-57.6		34	.9
40	27	22,179	-56.7		36	1.0
30	27	[illegible]	-54.2		31	1.5
25	24	25,183	-53.1		31	2.3
20	23	26,634	-51.1		30	1.9
15	18	28,503	-48.2		29	3.8
10	8	31,140	-44.5			
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SALT LAKE CITY, UT — 853 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	1,288	13.4	5.7	15	2.8
30	1,814	17.1	2.0	16	4.8
30	[illegible]	14.7	-4.6	17	3.1
30	2,371	10.8	-2.9	19	3.7
30	3,142	6.3	-5.3	21	3.1
30	3,744	1.6	-8.0	24	4.5
30	4,384	-3.1	-12.5	22	5.8
30	5,067	-7.7	-18.4	23	6.1
30	5,802	-12.3	-20.5	25	5.6
30	6,599	-17.8	-31.6	25	6.4
30	7,469	-24.4	-36.4	24	7.5
30	8,430	-31.9	-42.7	24	7.5
30	9,497	-40.5	-49.1	24	9.1
30	10,714	-49.6		25	11.8
30	12,153	-56.1		28	14.2
29	12,999	-58.1		28	12.3
29	13,904	-61.0		29	11.9
29	15,089	-63.8		26	9.2
28	16,452	-64.1		26	5.4
28	17,815	-63.4		28	3.0
28	18,840	-61.5		28	1.6
26	19,831	-60.7		27	.7
26	20,741	-58.7		01	.8
25	22,156	-56.6		04	.7
24	23,996	-53.7		06	.8
23	25,177	-52.2		02	.9
20	26,650	-49.8		30	.5
15	28,545	-47.6		03	.9
7	31,272	-42.1			

SAN DIEGO, CA — 994 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	124	19.1	17.0	29	.4
30	330	17.6	14.8		
30	546	17.2	13.9	15	.1
30	1,008	16.2	9.8	33	1.3
30	1,495	15.6	3.8	34	2.4
30	[illegible]	13.6	[illegible]	14	3.2
30	2,549	10.8	-5.1	15	3.7
30	[illegible]	7.5	-9.9	16	3.9
30	3,727	3.7	-14.3	17	4.2
30	[illegible]	[illegible]	-17.5	18	4.8
30	5,061	-4.9	-22.2	20	4.8
30	5,803	-10.1	-25.7	21	4.1
30	6,607	-15.7	-30.8	22	4.2
29	[illegible]	-22.4	-37.0	23	7.9
29	8,454	-29.9	-43.8	23	9.6
29	9,529	-38.4	-50.7	23	11.1
29	10,760	-46.5		24	12.8
29	12,217	-54.0		24	14.3
29	[illegible]	-57.4		23	13.5
29	14,034	-61.5		24	12.2
29	15,153	-65.5		24	8.7
29	16,503	-66.9		24	4.2
29	17,855	-65.4		26	.5
28	18,871	-63.7		07	2.2
28	19,821	-61.7		09	3.3
28	20,759	-58.9		09	4.3
28	[illegible]	-56.5		09	4.6
28	24,008	-53.0		09	4.4
28	25,189	-51.0		08	8.5
26	26,647	-49.4		09	4.4
26	28,553	-47.2		09	8.6
9	31,259	-43.8			

SAN JUAN, P. R. — [illegible] MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	[illegible]	[illegible]	22.8	12	[illegible]
30	[illegible]	[illegible]	21.4	14	3.3
30	584	22.3	[illegible]	12	5.8
30	1,008	19.5	15.3	12	6.3
30	1,453	[illegible]	[illegible]	12	6.9
30	2,059	[illegible]	5.7	12	5.4
30	2,601	11.3	[illegible]	12	4.7
30	3,175	8.0	[illegible]	11	4.4
30	3,783	4.6	[illegible]	11	3.1
30	4,431	1.6	-12.6	12	2.4
30	5,124	-3.6	-15.4	15	1.8
30	5,871	-8.3	-21.4	16	1.5
30	6,683	-13.3	-25.7	17	.9
30	7,570	-18.3	-31.7	24	.8
30	8,554	-25.8	-38.5	22	1.1
30	9,649	-34.4	-46.1	25	1.5
30	10,898	-44.5		27	2.6
30	12,353	-54.4		29	5.1
30	13,190	-56.4		28	6.1
30	14,128	-58.3		29	6.1
30	15,211	-71.6		27	4.9
30	16,528	-71.5		23	4.0
30	17,847	-71.4		12	4.7
30	18,844	-68.2		10	8.3
30	19,578	-64.7		10	10.9
30	20,701	-60.8		10	13.1
30	22,101	-57.3		10	16.1
30	23,940	-53.3		11	18.7
30	25,121	-51.0		11	20.6
27	26,579	-47.9		10	22.9
27	28,493	-44.7		10	25.1
26	31,225	-41.1		10	25.1

SAULT STE MARIE, MI — [illegible] MB

No. of observations	Dynamic height meters	Temperature	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
3	22[illegible]	[illegible].6	[illegible].4	3	[illegible].6
3	550[illegible]	[illegible].3	5.2	29	3.1
3	[illegible],200	8.8	[illegible].2	29	[illegible].7
30	1,477	6.3	[illegible].4	29	[illegible].7
30	1,972	[illegible].4	-5.4	29	[illegible].5
30	2,496	[illegible].8	-6.9	29	8.9
30	3,050	[illegible].4	[illegible].4	29	10.6
30	[illegible],638	[illegible].0	-16.2	29	11.8
30	4,266	[illegible].5	-21.3	29	12.9
30	4,937	-12.0	-24.8	29	13.7
30	5,664	-16.5	-28.0	29	14.4
30	6,444	[illegible].8	-33.9	29	15.7
30	7,301	[illegible].2	-38.5	29	17.5
30	8,248	-35.1	[illegible].1	29	18.2
30	9,303	-42.7	[illegible].2	29	20.6
30	10,513	-50.2		29	22.1
30	[illegible],953	[illegible].0		29	21.5
30	12,810	[illegible].4		29	[illegible].1
30	13,795	-65.5		29	17.8
30	14,955	-66.0		29	14.7
30	16,367	-67.1		29	11.0
30	17,783	-68.4		29	8.3
30	[illegible],616	-65.4		29	6.3
30	[illegible],782	[illegible].2		29	4.1
30	21,217	-62.9		29	3.4
30	[illegible],382	[illegible].5		29	3.2
29	[illegible],267	[illegible].4		29	2.3
28	26,738	-47.8		29	4.5
28	[illegible],045	-45.9		29	5.1
27	31,349	-40.8		29	6.8
7	33,829	-37.[illegible]			

SPOKANE, WA — 933 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	780	11.8	6.0	12	1.3
1000						
950						
900	30	1,020	15.7	4.2	13	1.4
850	30	1,584	14.1	.0	20	1.5
800	30	2,013	10.5	-1.4	22	2.3
750	30	2,546	6.5	-3.9	24	2.9
700	30	3,108	3.0	-9.3	24	3.8
650	30	3,706	.0	-14.2	24	4.9
600	30	4,344	-3.4	-19.0	25	5.5
550	30	5,025	-7.6	-23.1	25	5.0
500	30	5,760	-12.8	-27.5	25	5.3
450	30	6,557	-17.7	-32.4	26	5.9
400	30	7,427	-24.4	-38.2	26	6.8
350	30	8,388	-31.9	-44.8	26	6.3
300	30	9,455	-40.8	-50.2	25	5.0
250	30	10,670	-50.5		26	6.2
200	29	12,095	-57.5		27	7.6
175	29	12,936	-58.9		28	8.4
150	29	13,903	-59.2		27	9.0
125	26	15,042	-60.4		27	8.5
100	26	16,430	-61.1		27	6.5
80	28	17,820	-59.7		28	4.3
70	28	18,656	-59.2		28	3.2
60	28	19,624	-58.1		30	2.1
50	28	20,774	-57.4		32	2.1
40	28	22,186	-56.9		36	1.4
30	28	24,010	-54.5		31	2.1
25	27	25,188	-53.1		31	2.3
20	24	26,667	-51.2		29	3.2
15	24	28,517	-48.7		28	3.3
10	21	31,239	-44.9		28	4.0
7	6	33,771	-39.1			

TAMPA BAY, FL — 1014 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	8	21.7	21.0	06	1.1
30	135	23.5	21.1	12	1.3
30	584	22.0	17.6	19	1.5
30	1,053	19.2	14.6	25	2.0
30	1,543	16.0	11.7	21	2.6
30	2,057	13.1	7.9	21	3.0
30	2,598	10.7	3.0	22	3.1
30	3,171	7.6	-.8	23	3.0
30	3,778	4.3	-5.5	24	3.1
30	4,426	.7	-10.8	25	3.6
30	5,120	-3.1	-15.5	26	3.7
30	5,869	-7.5	[illegible]	27	4.3
30	6,681	-12.7	-25.[illegible]	27	4.3
30	7,570	-18.8	-31.4	28	5.1
30	8,554	-25.8	-36.9	28	5.4
30	9,648	-34.6	-44.4	28	5.2
30	10,895	-44.8		28	7.2
30	12,348	-56.6		28	9.1
30	13,184	-62.4		29	9.2
30	14,122	-67.9		30	8.8
30	15,208	-71.4		31	7.0
30	16,527	-70.7		34	3.0
30	17,863	-66.6		07	2.2
30	18,878	-63.6		09	3.9
29	19,829	-61.6		08	6.3
29	20,768	-58.2		10	8.4
28	22,181	-55.4		10	9.1
27	24,033	-51.7		09	11.0
27	25,220	-49.9		09	11.3
26	26,883	-47.9		08	11.5
24	28,596	-45.3		08	10.8
11	31,317	-41.4		09	8.7
7	33,743	-37.0			

TOPEKA, KS — 986 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	268	14.4	11.1	03	.3
30	584	17.9	9.7	25	1.1
30	1,047	16.5	7.4	27	2.0
30	1,532	14.0	4.9	26	2.4
30	2,042	11.3	2.6	27	2.7
30	2,578	8.3	-.[illegible]	28	3.1
30	3,146	5.[illegible]	-4.5	29	3.2
30	3,748	1.6	-9.[illegible]	28	3.5
30	4,388	-2.0	-14.4	28	4.0
30	5,075	-6.0	-21.[illegible]	29	4.8
30	5,815	-10.7	-25.1	29	5.9
30	6,615	-16.0	-31.5	29	7.6
30	7,469	-22.6	-37.7	29	8.6
30	8,459	-30.1	-42.8	29	9.1
30	9,535	-38.4	-49.[illegible]	29	13.0
30	10,763	-47.8		29	17.9
30	12,206	-56.4		29	21.1
30	13,049	-59.2		29	20.8
30	14,008	-61.9		29	17.9
30	15,128	-64.8		29	15.0
30	16,481	-65.0		30	10.8
30	17,851	-62.9		30	5.9
30	18,677	-61.2		30	3.6
29	19,643	-59.2		32	2.4
28	20,791	-57.1		36	.8
28	22,212	-54.6		36	.2
28	[illegible],072	-51.7		09	.7
27	[illegible],260	-50.1		07	1.5
26	[illegible],724	-47.9		07	1.5
23	[illegible],627	-45.8		08	1.2
13	31,360	-41.3		09	1.2

TRUK, CAROLINE IS. — 1010 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	3	28.0	24.5	22	3.1
30	93	26.9	23.4	22	3.6
30	546	23.6	20.9	33	5.1
30	1,018	20.6	17.0	24	6.2
30	1,511	17.8	13.9	25	6.1
30	2,029	15.5	11.1	26	4.8
30	2,575	13.2	7.1	27	4.1
30	3,154	10.1	2.9	26	2.9
30	3,767	6.7	-.6	27	2.8
30	4,421	3.0	-4.3	26	1.5
30	5,122	-.6	-9.8	25	.5
30	5,878	-4.9	-14.6	08	2.4
30	6,708	-9.8	-19.2	10	3.4
30	7,600	-15.3	-25.0	10	4.1
29	8,599	-22.0	-31.6	09	5.4
29	9,711	-30.4	-41.7	08	4.8
28	10,980	-40.8	-49.9	08	8.7
28	12,458	-53.1		07	11.5
28	13,306	-59.9		06	12.8
28	14,251	-67.4		07	11.7
28	15,332	-74.1		07	9.4
28	16,614	-78.5		07	5.7
27	17,909	-71.9		09	5.6
26	18,705	-68.1		09	5.2
26	19,638	-65.3		10	4.2
26	20,758	-62.0		09	4.4
26	22,148	-58.8		09	11.0
26	23,972	-54.3		09	24.8
25	25,148	-51.6		09	30.1
23	26,907	-47.9		09	32.[illegible]
21	28,525	-43.6		09	33.9
10	31,278	-37.7			

TUSCALOOSA — 924 MB

No. of observations	Dynamic height meters	Temperature	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	789	[illegible].3	[illegible].7	[illegible]	[illegible]
30	1,015	22.0	10.3	[illegible]	[illegible]
30	1,510	19.5	8.2	[illegible]	[illegible]
30	2,029	15.7	9.3	[illegible]	[illegible]
30	2,574	11.8	[illegible].6	[illegible]	[illegible]
30	3,148	7.9	[illegible].4	[illegible]	[illegible]
30	3,765	4.1	-1.5	[illegible]	[illegible]
30	4,402	.6	[illegible].4	[illegible]	[illegible]
30	5,093	-4.2	[illegible].7	[illegible]	[illegible]
30	5,838	-9.4	[illegible].4	[illegible]	[illegible]
30	6,649	[illegible].2	[illegible].[illegible]	[illegible]	[illegible]
30	7,528	-20.7	[illegible].6	[illegible]	[illegible]
30	8,504	[illegible].0	[illegible].4	[illegible]	[illegible]
30	9,589	[illegible].6	[illegible].[illegible]	[illegible]	[illegible]
30	10,827	[illegible].7	[illegible]	[illegible]	[illegible]
30	12,283	[illegible].8	[illegible]	[illegible]	[illegible]
30	13,129	[illegible].1	[illegible]	[illegible]	[illegible]
30	14,084	[illegible].4	[illegible]	[illegible]	[illegible]
30	15,189	[illegible].8	[illegible]	[illegible]	[illegible]
29	16,517	[illegible].7	[illegible]	[illegible]	[illegible]
27	17,851	[illegible].8	[illegible]	[illegible]	[illegible]
27	18,664	[illegible].2	[illegible]	[illegible]	[illegible]
27	19,614	[illegible].6	[illegible]	[illegible]	[illegible]
27	20,751	[illegible].1	[illegible]	[illegible]	[illegible]
26	22,159	[illegible].5	[illegible]	[illegible]	[illegible]
26	24,003	[illegible].7	[illegible]	[illegible]	[illegible]
25	25,184	[illegible].3	[illegible]	[illegible]	[illegible]
23	26,842	[illegible].0	[illegible]	[illegible]	[illegible]
21	28,541	[illegible].9	[illegible]	[illegible]	[illegible]
7	31,281	[illegible].9			

LANDENBERG AFB, CA — 1002 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	27	100	14.6	13.3	05	.4
1000	27	1.9	14.7	13.3	04	.5
950	27	549	16.5	10.7	02	1.4
900	27	1,012	18.1	5.[illegible]	04	1.7
850	27	1,500	16.8	[illegible].0	03	1.7
800	27	2,013	13.8	-1.1	07	.7
750	27	2,554	10.5	-4.6	12	.9
700	27	3,125	6.9	-9.2	15	1.5
650	27	3,730	3.0	-14.0	14	2.0
600	27	4,373	-1.0	-17.7	13	1.7
550	27	5,[illegible]	-5.6	-21.3	14	.4
500	27	5,802	-10.6	-26.7	24	.2
450	27	6,[illegible]	-16.3	-32.3	27	1.4
400	27	7,479	-22.6	-37.1	28	1.4
350	27	8,447	-30.2	-43.9	29	2.6
300	27	9,521	-38.7	-50.8	30	4.8
250	27	10,751	-48.7		29	7.8
200	27	12,206	-53.7		28	8.6
175	27	13,058	-57.1		27	7.8
150	27	14,025	-60.6		28	8.0
125	26	15,149	-64.0		26	6.8
100	25	16,507	-65.4		26	4.5
80	23	17,861	-64.3		29	1.3
70	23	18,681	-62.9		03	.9
60	23	19,639	-60.9		07	1.7
50	21	20,778	-58.8		09	2.9
40	21	22,187	-56.7		10	2.9
30	20	24,023	-53.0		09	1.4
25	20	25,204	-51.0		08	1.3
20	18	26,660	-49.6		07	.5
15	17	28,553	-46.7		10	.9
10	13	31,263	-44.5		07	1.4
7	7	33,687	-40.4			
5	5	36,[illegible]5	-37.4			

VICTORIA, TX — 1011 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	33	21.1	[illegible].0	13	1.3
30	128	23.6	[illegible].8	18	1.0
30	577	21.9	18.1	16	3.2
30	1,048	19.5	14.[illegible]	18	3.2
30	1,537	16.8	6.9	18	1.8
30	2,052	14.2	5.6	17	1.1
30	2,595	11.4	1.3	14	.6
30	3,169	8.1	-3.7	22	.3
30	3,777	4.9	-6.9	17	.9
30	4,426	1.4	-11.1	17	1.7
30	5,122	-2.7	-15.4	17	3.1
30	5,871	-7.2	-20.2	17	3.8
30	6,685	-12.4	-26.2	18	4.4
30	7,575	-17.9	-31.7	19	6.2
30	8,563	-24.9	-38.0	19	7.7
29	9,662	-33.3	-44.6	19	9.9
29	10,915	-43.6		18	13.0
29	12,376	-55.6		18	15.1
29	13,215	-61.7		18	16.0
29	14,155	-68.2		20	14.5
28	15,235	-73.4		19	9.4
28	16,535	-73.4		19	4.2
28	17,860	-68.2		24	1.6
28	18,[illegible]4	-65.0		04	.4
28	19,620	-62.5		07	.5
26	20,754	-59.1		08	.6
26	22,162	-56.1		08	1.2
26	24,007	-52.5		09	1.6
25	25,190	-50.4		10	1.4
25	26,655	-47.7		09	.6
25	28,562	-46.0		09	.4
21	31,273	-42.2		09	.5
6	33,676	-38.1			

WAKE IS., PACIFIC AREA — 1014 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
29	5	27.5	24.2	11	5.1
29	125	26.9	22.9	10	4.3
29	577	22.8	20.0	10	3.9
29	1,048	20.1	15.8	10	3.1
29	1,540	17.5	12.7	09	2.3
29	2,056	14.6	8.7	10	1.9
29	2,600	12.2	2.6	10	1.0
29	3,176	9.6	-3.7	09	1.3
29	3,788	6.0	-7.2	10	1.1
29	4,438	2.0	-11.5	10	1.4
29	5,135	-2.2	-15.9	10	1.9
29	5,887	-6.3	-22.7	09	3.5
29	6,701	-11.6	-25.8	07	2.9
29	7,594	-17.7	-31.2	04	2.6
29	8,583	-24.5	-38.0	03	2.9
29	9,684	-32.8	-46.5	01	2.9
29	10,941	-42.6		34	4.2
29	12,409	-54.2		34	4.5
29	13,253	-60.7		32	5.2
29	14,196	-67.4		33	7.5
28	15,279	-72.0		36	4.6
28	16,576	-75.2		36	4.3
28	17,873	-72.6		08	5.9
28	18,667	-68.7		08	10.0
28	19,598	-65.5		09	12.1
28	20,716	-61.9		09	[illegible].5
28	22,109	-58.8		09	[illegible].5
28	23,937	-54.1		09	18.3
28	25,115	-51.[illegible]		09	20.7
28	26,570	-49.4		09	22.4
28	28,468	-44.[illegible]		09	23.2
28	31,194	-41.[illegible]		09	24.3
7	33,644	-38.8			

WALLOPS ISLAND, VA NASA — 1017 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
30	4	18.3	16.3	19	.4
30	147	20.1	13.4	08	1.4
30	589	17.9	10.5	27	1.9
30	1,050	15.1	7.8	27	3.3
30	1,532	12.3	3.9	27	4.3
30	2,038	9.6	-.[illegible]	26	5.3
30	2,572	7.0	-5.8	26	6.5
30	3,137	4.6	-10.7	20	7.8
30	3,737	1.6	-12.[illegible]	27	8.8
30	4,379	-1.7	-16.7	26	10.0
30	5,066	-5.6	-20.8	26	11.5
30	5,807	-10.4	-24.1	26	13.5
30	6,611	-15.7	-28.[illegible]	26	14.8
30	7,488	-22.1	-33.[illegible]	26	16.5
30	8,460	-29.5	-39.7	26	17.6
30	9,538	-38.1	-47.7	25	18.4
30	10,761	-48.1		26	[illegible].3
30	12,200	-57.6		26	23.5
30	13,036	-60.9		26	[illegible].3
30	13,989	-63.1		26	18.9
30	15,107	-64.5		26	15.9
30	16,472	-63.5		26	10.5
30	17,850	-61.[illegible]		26	5.[illegible]
30	18,684	-59.4		25	4.1
30	19,647	-57.3		25	3.[illegible]
30	20,805	-55.[illegible]		24	[illegible].[illegible]
30	22,236	-53.[illegible]		23	.7
30	24,098	-51.[illegible]		17	2.3
30	25,290	-49.[illegible]		18	3.1
29	26,763	-47.[illegible]		19	3.[illegible]
28	28,660	-44.[illegible]		20	3.2
9	31,368	-41.[illegible]			

WASHINGTON DULLES INT. AP — 1007 MB

| No. of observations |

RAWINSONDE DATA

Average monthly values

Standard pressure surface mb	MAYCREEK, GA 1012 MB						WINNEMUCCA, NV 869 MB						WINSLOW, AZ 854 MB						YAKUTAT, AK 1009 MB						YAP, CAROLINE IS. 1008 MB					
	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	44	20.1	19.3	35	.3	30	1,312	11.5	3.4	11	1.1	30	1,487	13.0	7.7	15	1.2	29	12	7.0	5.9	11	1.6	30	14	27.2	24.3	26	3.5
1000	30	145	21.1	19.2	03	.5													26	95	9.5	7.6	12	2.3	30	82	26.2	23.8	26	4.4
950	30	591	20.5	16.4	20	.4													29	509	7.9	4.7	15	4.3	30	535	22.9	21.2	26	7.3
900	30	1,038	17.8	14.0	24	1.1													29	953	4.8	1.6	16	4.8	30	1,006	20.2	17.6	27	7.7
850	30	1,545	14.9	10.8	24	2.1	30	1,500	15.1	3.4	9	1.5	29	1,524	14.7	7.3	17	1.6	29	1,417	1.7	-1.7	17	5.3	30	1,498	17.6	14.2	27	7.3
800	30	2,057	12.4	6.4	25	2.7	30	2,014	14.4	-.4	16	1.2	30	2,038	15.3	5.4	21	3.7	29	1,904	-.9	-4.9	17	6.0	30	2,016	15.0	11.0	27	6.2
750	30	2,597	9.6	1.2	26	3.3	30	2,556	10.6	-4.2	21	1.9	30	2,582	11.8	2.6	21	4.4	29	2,417	-3.8	-9.0	18	6.4	30	2,561	12.6	6.4	27	5.3
700	30	3,167	6.5	-2.5	26	4.3	30	3,126	6.1	-6.0	22	2.8	30	3,156	7.8	-.2	20	4.8	29	2,958	-7.1	-14.0	18	7.1	30	3,138	9.7	2.6	27	4.7
650	30	3,772	3.8	-7.1	24	5.0	30	3,728	1.5	-8.9	23	3.5	30	3,763	3.3	-3.9	20	5.4	28	3,530	-10.8	-18.3	19	7.6	30	3,751	6.2	.0	27	4.5
600	30	4,449	-.2	-11.9	25	6.3	30	4,368	-2.7	-.4.4	23	4.4	30	4,408	-.9	-9.7	20	5.6	28	4,141	-14.5	-22.7	19	8.9	30	4,404	2.6	-4.5	26	3.6
550	30	5,111	-3.8	-16.9	25	5.8	30	5,053	-6.9	-.8.3	23	3.9	30	5,097	-5.4	-15.6	20	4.4	28	4,795	-19.1	-27.1	19	8.9	30	5,103	-1.3	-7.7	26	2.1
500	30	5,857	-8.5	-20.8	25	4.6	30	5,790	-11.7	-24.3	23	3.3	30	5,838	-10.1	-22.1	22	5.6	28	5,497	-23.8	-32.3	20	9.6	30	5,858	-5.4	-12.9	26	.9
450	30	6,667	-13.5	-26.8	24	7.3	30	6,588	-17.4	-29.1	23	2.7	30	6,643	-15.4	-27.6	23	7.4	28	6,259	-29.0	-36.6	20	10.9	30	6,679	-9.9	-18.6	31	.4
400	30	7,592	-19.9	-32.1	26	8.3	30	7,459	-23.9	-35.8	25	3.7	30	7,521	-21.8	-33.4	23	8.5	28	7,091	-35.0	-41.8	21	12.4	30	7,578	-15.4	-25.4	09	.7
350	30	8,634	-27.0	-34.3	26	10.0	30	8,422	-31.6	-42.6	24	4.7	30	8,493	-29.0	-39.8	24	10.9	28	8,013	-41.2	-45.7	21	14.4	30	8,576	-22.3	-31.3	06	1.7
300	30	9,621	-35.5	-47.5	26	11.1	30	9,490	-40.4	-50.4	24	5.3	30	9,574	-37.5	-46.0	24	13.8	28	9,043	-47.4		22	14.4	30	9,688	-30.4	-39.4	04	4.2
250	30	10,863	-45.6		26	12.7	30	10,710	-48.8		25	5.1	30	10,807	-46.8		24	14.3	28	10,237	-51.2		22	14.0	30	10,957	-40.6	-47.0	06	7.1
200	30	12,444	-56.6		27	14.5	30	12,154	-55.1		25	7.4	30	12,258	-55.0		24	9.8	28	11,692	-49.9		22	12.6	30	12,435	-53.5		07	11.8
175	30	13,151	-61.6		27	13.3	30	13,002	-57.5		25	8.0	30	13,103	-58.9		24	19.2	28	12,566	-49.8		23	9.9	30	13,281	-60.5		07	13.4
150	30	14,074	-66.6		28	13.7	30	13,970	-60.0		26	7.7	30	14,061	-62.6		25	15.2	28	13,572	-50.7		22	9.5	30	14,224	-68.0		07	15.8
125	30	15,189	-69.2		29	9.8	30	15,102	-62.5		26	6.7	30	15,175	-66.7		25	10.3	28	14,758	-51.4		23	8.7	30	15,300	-72.2		07	14.7
100	30	16,536	-69.0		29	4.5	30	16,475	-63.2		26	5.3	30	16,518	-68.2		25	5.9	28	16,208	-51.3		22	7.4	30	16,579	-78.0		08	9.4
80	30	17,867	-64.9		31	.9	29	17,849	-62.3		28	2.1	29	17,863	-65.6		27	1.1	26	17,653	-51.2		22	7.1	30	17,871	-72.5		08	7.8
70	30	18,688	-62.3		02	1.7	29	18,676	-61.2		02	1.0	29	18,679	-63.9		08	1.1	26	18,522	-51.1		22	6.0	30	18,664	-68.6		08	8.8
60	30	19,645	-60.5		08	2.8	29	19,636	-59.8		02	.6	29	19,629	-61.7		08	1.8	26	19,525	-51.1		23	5.2	29	19,596	-65.5		09	8.5
50	30	20,789	-57.3		09	4.4	29	20,780	-58.4		05	1.0	28	20,766	-58.6		09	2.5	26	20,710	-51.4		23	4.5	28	20,713	-62.7		08	9.5
40	28	22,161	-54.5		09	7.2	29	22,191	-56.2		03	1.1	28	22,175	-56.5		08	2.5	26	22,160	-51.6		23	3.8	28	22,102	-58.5		09	13.1
30	27	24,003	-51.2		09	8.3	29	24,032	-53.3		33	.8	24	24,028	-53.0		09	4.1	26	24,025	-52.1		25	2.4	27	23,922	-55.5		09	22.9
25	24	25,257	-49.7		09	8.5	28	25,210	-51.7		31	.7	23	25,213	-51.1		10	5.0	25	25,205	-51.8		27	2.6	26	25,089	-52.9		09	28.1
20	24	26,724	-47.7		09	7.8	28	26,665	-49.6		36	1.3	19	26,665	-49.0		09	3.0	23	26,659	-51.4		29	1.8	25	26,548	-48.5		09	31.8
15	24	28,638	-45.5		08	8.9	28	28,536	-47.2		08	3.4	15	28,564	-47.7		08	2.7	19	28,563	-49.7		32	2.7	22	28,454	-44.8		09	32.6
10	17	31,393	-41.4		08	7.1													16	31,248	-46.6				13	31,197	-40.3			

Standard pressure surface mb	MECCA FLAT, NV 881 MB					
	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	1,198	13.5	7.3	26	.5
1000						
950						
900						
850	30	1,503	18.5	6.6	28	.7
800	30	2,028	15.4	4.3	18	2.2
750	30	2,564	11.4	1.7	17	3.4
700	30	3,136	6.9	-1.7	16	3.9
650	30	3,741	2.4	-5.2	16	4.3
600	30	4,383	-1.9	-11.2	17	4.0
550	30	5,070	-6.4	-18.0	19	4.0
500	30	5,808	-11.3	-23.8	20	4.0
450	30	6,609	-16.7	-27.9	21	4.1
400	30	7,483	-22.9	-34.9	22	4.9
350	30	8,450	-30.5	-40.5	23	5.5
300	30	9,523	-39.3	-48.2	23	8.0
250	30	10,748	-48.0		23	9.6
200	30	12,198	-54.4		24	10.6
175	30	13,047	-57.8		24	10.4
150	30	14,013	-60.7		24	10.7
125	30	15,138	-64.1		25	8.6
100	30	16,500	-65.2		24	4.9
80	30	17,861	-64.2		26	1.8
70	29	18,682	-62.5		36	.4
60	28	19,640	-60.9		09	1.2
50	28	20,782	-58.3		08	1.7
40	27	22,194	-56.4		08	1.9
30	27	24,033	-53.4		09	1.8
25	27	25,212	-51.5		09	1.3
20	26	26,667	-49.6		07	.8
15	19	28,545	-47.9		25	.5
10	8	31,235	-44.0			

SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute of solar normal in the direction of the sun.

Sun's zenith distance

Date	A.M.				*	P.M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
1	4.19	3.35	2.51	1.67	*	1.67	2.51		
1				1.15					
1	(.85)		(1.06)	(1.21)					
1				1.22			1.01		
1		1.01	1.14	1.29	1.39	(1.29)	1.10		.89
1	.96	.97	1.07	1.23					
1			1.04	1.18	1.36				
1	.72	.81	.92	1.08	1.32			.68	
1	.82	.95	1.06	1.23	1.40	1.28	1.12	1.01	.91
1		1.05	1.12	1.24	1.42				
1	.90		1.02	1.18					
15					1.38				
1					1.36			(.98)	
1	.81	.89		1.18	1.40	1.19	1.01		
1	.83	.92	1.06	1.21	1.36	1.21			
20	.72	.82	.98	1.15	(1.33)		1.04	.92	.82
1	.78	.87		1.19	1.36	1.12			.63
25							1.14		
1			1.13						
28	.89		1.08		1.36	1.22	1.02	.90	.80
1	.92	1.02	1.14	1.29		1.29			
1		1.05	1.17	1.33	.143	1.28	1.11	1.00	.91
Aver- ages	.84		1.06	1.21	1.38	1.23	1.04	.88	

Air mass

Date					*				
	4.78		3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
1							S 1.13		S .83	
1						I 1.04				
1	S .84	S .92	S 1.04	S 1.18	S 1.33	S 1.17	S 1.03			
1	S .86		S 1.04		S 1.30	S 1.10	S .95	S .82	S .72
1	M .75	S .84	S .94			M .96		M .58	M .48
1	M .70	M .77	M .85	M .96					
1				S 1.20	S 1.29	S 1.17	S 1.01		S .80
1	S .78	S .88	S 1.00	S 1.15	S 1.29			S .83	S .79
1	S .84	S .88	S .99						
16						M .93	M .77		M .56
1					S 1.36	S 1.11		M .61	
1		S 1.01		S 1.27	S 1.39				
1			S 1.07	S 1.20					
28		M .74	M .88	M 1.11					
1								M .82	M .76
Aver- ages		M .81	M .95	M 1.14	S 1.31	S 1.20	S 1.04	S .88	S .79
	.80	.87	.99	1.15		1.10	.92	.78	.72

Date					*				
	4.64	3.71	2.78	2.01	1.34	*	1.34		
1	1.15	1.23			1.43				
1									
1	1.15	1.22	1.31		1.40				
1	1.15	1.22	1.31		1.41				
1	1.18	1.24	1.33		1.43				
1	1.18	1.26	1.34		1.44				
1	1.20	1.26	1.35						
1	1.05	1.14	1.23		1.34		1.21	1.11	1.03
1	1.09	1.17	1.27		1.37	1.49			
1	1.13	1.21	1.30						
12	1.13	1.21	1.30		1.41				
13	1.18		1.35		1.44				
1	1.16	1.25	1.34		1.44				
1	1.16		1.34			1.51			
1	1.15		1.31		1.43				
1	1.16		1.34		1.43				
20	1.18	1.25	1.34		1.44	1.54	1.38	1.26	1.17	1.09
22	1.17	1.25	1.33		1.43	1.50				
1	1.12		1.29							
25	1.13	1.23	1.33		1.44	1.54				
26	1.18	1.25	1.34		1.43	1.52	1.37	1.27	1.15	1.06
1	1.18	1.25	1.33		1.43					
1			1.34		1.43	1.51				
Aver- ages	1.15	1.23	1.32		1.42	1.52	1.38	1.25	1.14	1.06

Air mass

Date					*				
	4.64	3.71	2.78	1.86	*	1.86	2.78	3.71	4.64
1				1.06	1.31				
1		.87							
1	.72	.84		1.13	1.31				
1	.73	.83	.95	1.12	1.31				
6	.84								
7	.89	.97	1.	1.22		1.19	1.06		
1	.79	.89							
1		.86	.99	1.14	1.37	1.23	1.07		.86
1		.96	1.	1.23	1.40	1.23	1.07	.96	.86
1	.86	.95	1.03	1.16					
1						1.19	1.04		.86
1		.97	1.	1.25	1.40	1.20	1.03	.94	.84
1	.88	.96	1.	1.20	1.39	1.24	1.09		.89
1	.85	.93	1.	1.20	1.36	1.20	1.07	.97	.89
1	.91	1.00	1.	1.26	1.44	1.31	1.18	1.05	
19	.94	1.03	1.	1.28	1.42	1.26	1.09	.99	
20				1.22	1.36				
21					1.17		.82	.65	.56
1		.74		1.03	1.17		.80		
1	.50	.61		.94	1.17				
1	.79								.63
1	.66				1.26	1.25	1.08		
27	.83	.93	1.	1.22		1.18	1.03		.84
28	.83			1.18	1.34	1.13	.87	.69	
29	.87	.95	1.	1.24		1.17	.98	.89	.80
30	.83	.93	1.	1.20	1.31	1.10	.94	.82	
Aver- ages	.81	.90	1.	1.17	1.32		1.01	.87	.82

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

SEPTEMBER 1974

Station	Day of month																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
ALBUQUERQUE NM	478	534	534	585	483	489	550	543	166	285	562	571	---	422	474	477	426	525	478	[illegible]	447	[illegible]	409	---	421	---	326	491	497	496		466
BISMARCK ND	529	524	534	485	517	505	192	452	509	513	489	291	442	456	293	356	444	[illegible]	[illegible]	441	445	455	447	418	299	105	427	384	420	342		414
CARIBOU ME	55	521	501	[illegible]	---	194	197	194	503	470	99	276	423	402	227	144	363	97	146	441	185	103	258	324	343	310	77	269	81	404		271
EL PASO TX	340	388	392	414	167*	[illegible]	585	483	185	413	546	601*	578	321	517	551	467	501	20	[illegible]	561	515	489*	331	426	474	527	516	530	485		468
ELY NV	599	591	497	514	337	155	406	555	---	197	252	461	516	420	363	308	393	509	384	371	185	347	218	413	317	473	443	429	379	458		434
FRESNO CA	570	566	55[illegible]	433	468	477	549	546	430	123	283	465	524	464	531	506	503	473	474	482	479	437	477	487	466	438	424	[illegible]	84	412		448
GENEVA NY	160	457	[illegible]	212	266	576	439	490	439	259	156	491	490	351	203	174	139	[illegible]	457	110	340	[illegible]	215	422	454	41	39	348	416	271		318
GRAND JUNCTION CO	612	5[illegible]	[illegible]	[illegible]	[illegible]	146	[illegible]	572	494	238	369	515	552	466	317	444	426	[illegible]	[illegible]	501	392	494	[illegible]	135	293	319	433	483	492	484		45[illegible]
JOHN T[illegible] ISLAND PAC	611	628	611	606	610	607	629	479	601	536	563	63[illegible]	623	613	591	588	562	597	[illegible]	594	411	591	425	510	604	533	596	545	583	594		574
MADISON WI	384	487	470	[illegible]	[illegible]	501	[illegible]	473	479	525	508	495	458	173	121	251	[illegible]	446	75	[illegible]	44[illegible]	411	480	456	265	212	473	457*	461	419		447
MAJURO PAC	284	501	474	471	440	76	468	419	453	90	30	40[illegible]	480	227	38	190	590	446	575	577	249	131	441	582	263	580	462	490	539	326		364
MIAMI FL	362	365	106	441	410	419	564	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	435	379	300		---
NASHVILLE TN	135	231	463	217	474	579	477	471	297	587	576	557	552	518	506	444	474	[illegible]	488	211	[illegible]	525	[illegible]	476	449	193	106	139	73	276		402
OAK RIDGE TN	62	133	384	[illegible]	265	465	410	469	400	562	547	529	501	231	211	477	430	436	449	91	42[illegible]	500	467	453	429	101	67	155	135	67		330
PALE AZ	708	694	674	[illegible]	423	447	565	593	266	220	583	657	649	562	519	599	596	609	630	565	191	509	224	376	330	401	548	656	436	647		515
PHOENIX AZ	546	450	543	530	308	472	534	473	229	366	438	545	505	525	547	544	528	535	528	402	369	486	328	194	455	408	486	487	488	474		465
SEATTLE TACOMA WA	338	421	552	496	165	422	487	575	565	524	252	310	467	160	235	309	172	276	466	468	151	470	165	467	419	337	421	286	196	348		358
STERLING VA	439	438	331	428	467	573	544	534	490	392	536	527	507	434	102	135	314	259	445	565	505	481	422	261	159	141	419	141	33			354
TALLAHASSEE FL	384	476	535	241	197	[illegible]	476	429	463	320	542	327	497	210	576	512	563	479	440	403*	214	520	446	221	424	389	378	303	---	398		390

NET RADIATION

Net radiation in langleys per day (8 a.m. to 8 a.m.) at Palmer, Alaska.

SEPTEMBER 1974

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys	69	122	67	124	93	95	93	50	60	77	45	46	75	25	16	21	23	10	18	61	72	4	55	41	38	61	12	47	30	9		52

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals and monthly average (.3900 Å) at Ames, Iowa

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys																																

TOTAL OZONE DATA

These provisional ozone data are obtained from measurements made with a Dobson ozone spectrophotometer, and are applicable approximately to local apparent noon. The data are presented in the code as defined in the August 1962 WMO circular entitled "PUBLICATION OF DATA FOR METEOROLOGICAL RESEARCH, WORLD OZONE DATA."

Units Milli-atmo-cms.

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean O_3

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES: Dates in the table apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

+ And also on an earlier date or dates.
D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile data can be evaluated.

B Number of days maximum 21.1°C. or above for Alaskan Stations.
Y Peak Gust.
+ And also on an earlier date or dates.
U Indicates Urban site.
R Indicates Rural site.
Ø Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publication.

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters
$F. = \frac{9}{5} \times °C + 32$
1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

° Includes crop damage.
C Crop damage.
* No occurrence of storms or unusual weather phenomena reported.
' Includes heavy sleet storm.
Freezing drizzle and freezing rain, commonly known as glaze.
Ø For breakdown of "All Others," and for detailed listing of other storms, see the Environmental Data Service, NOAA, monthly publication STORM DATA.
‡ No Storm Data Report received for this State.
<> Report Incomplete.
† Storm damages are placed in categories varying from 1 to 9 as follows:

1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5 Million
7 $5 Million to $50 Million
8 $50 Million to $500 Million
9 $500 Million to $5 Billion.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1/ Flooding continued at the end of the month.
NA Not available.

FLOOD STAGE DATA:

Highest Stage Observed
1/ Continued at end of month
Highest Stage of Record
E Estimated
P Provisional (Flood Stage)
U Unknown

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
+ Observations for these stations are scheduled at 0000 G.C.T.
† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

REFERENCE NOTES

SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

( )	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
•	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeterminable
BD	Blowing Dust	F	Fog	I	Intense Haze-indeterminable		
BN	Blowing Sand	GF	Ground Fog	K	Smoke	S	Slight Haze-indeterminable
D	Dust	H	Haze	KI	Intense Smoke		
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		

SOLAR RADIATION TOTALS: Langley is the unit used to denote one gram calorie per square centimeter.

* Values with an asterisk are interpolated.
Data are only for those stations equipped with Eppley Model II sensors.

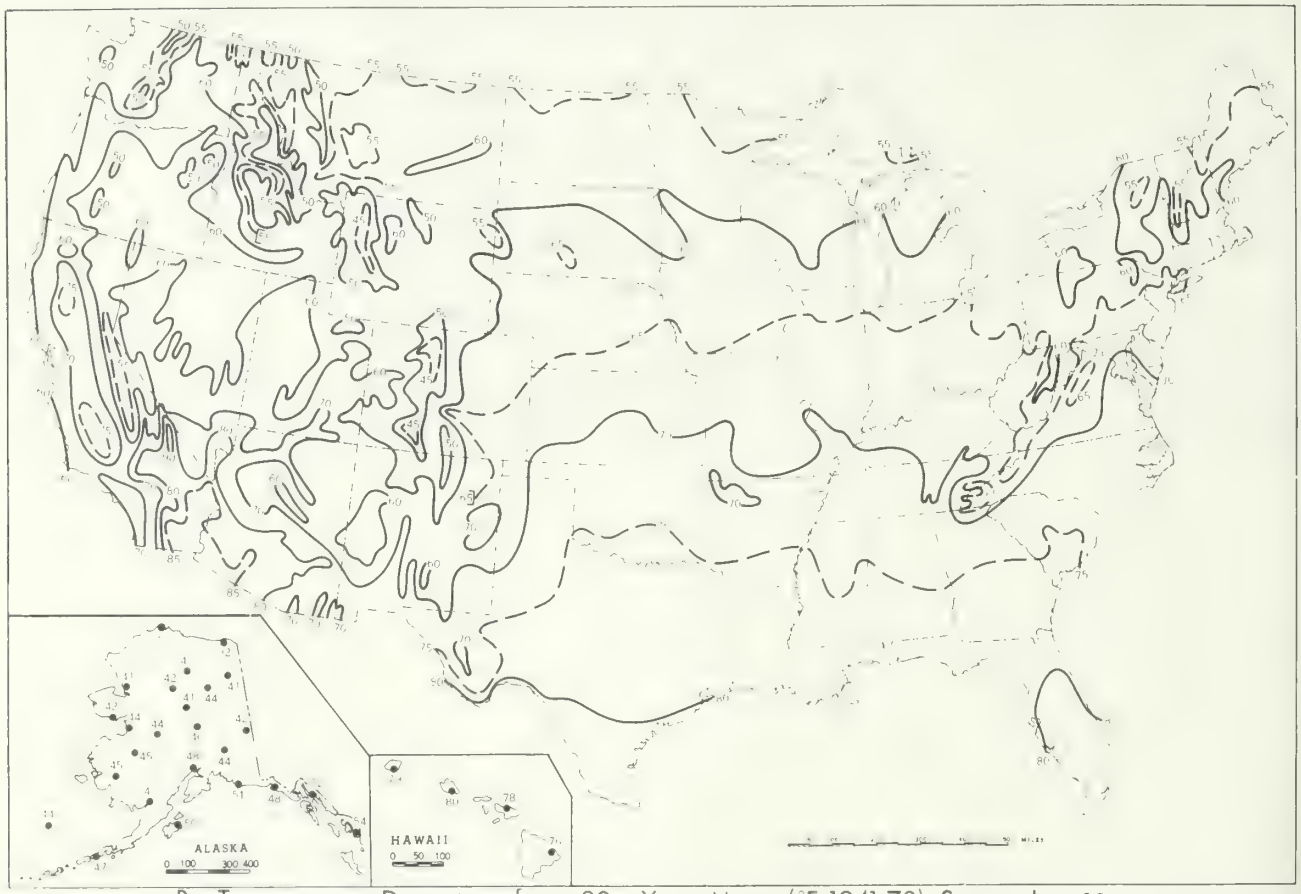
NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded Q Q Q) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code A S designates the type of measurement made.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), September.



B. Temperature Departure from 30 - Year Mean (°F 1941-70), September 1976

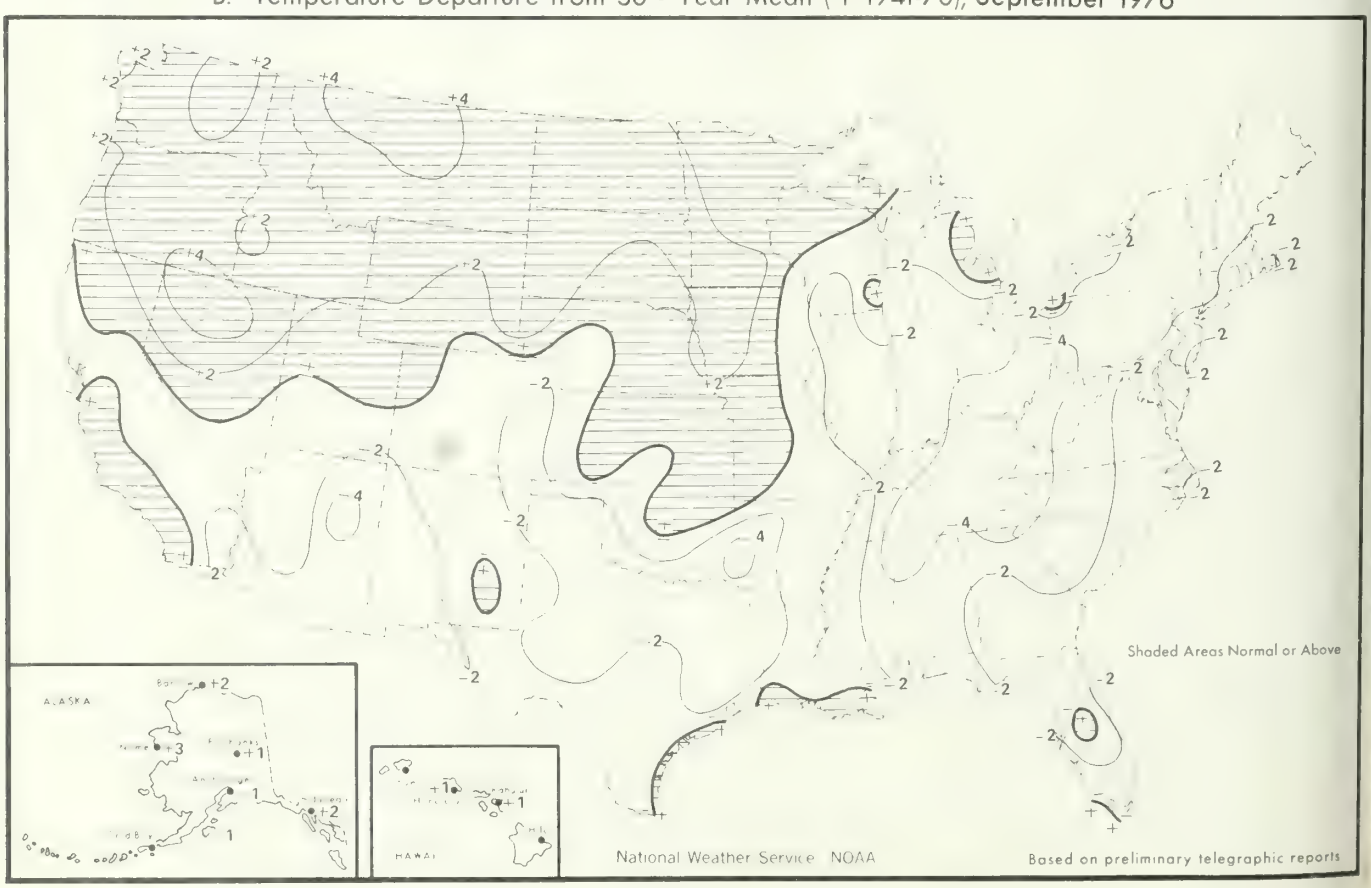
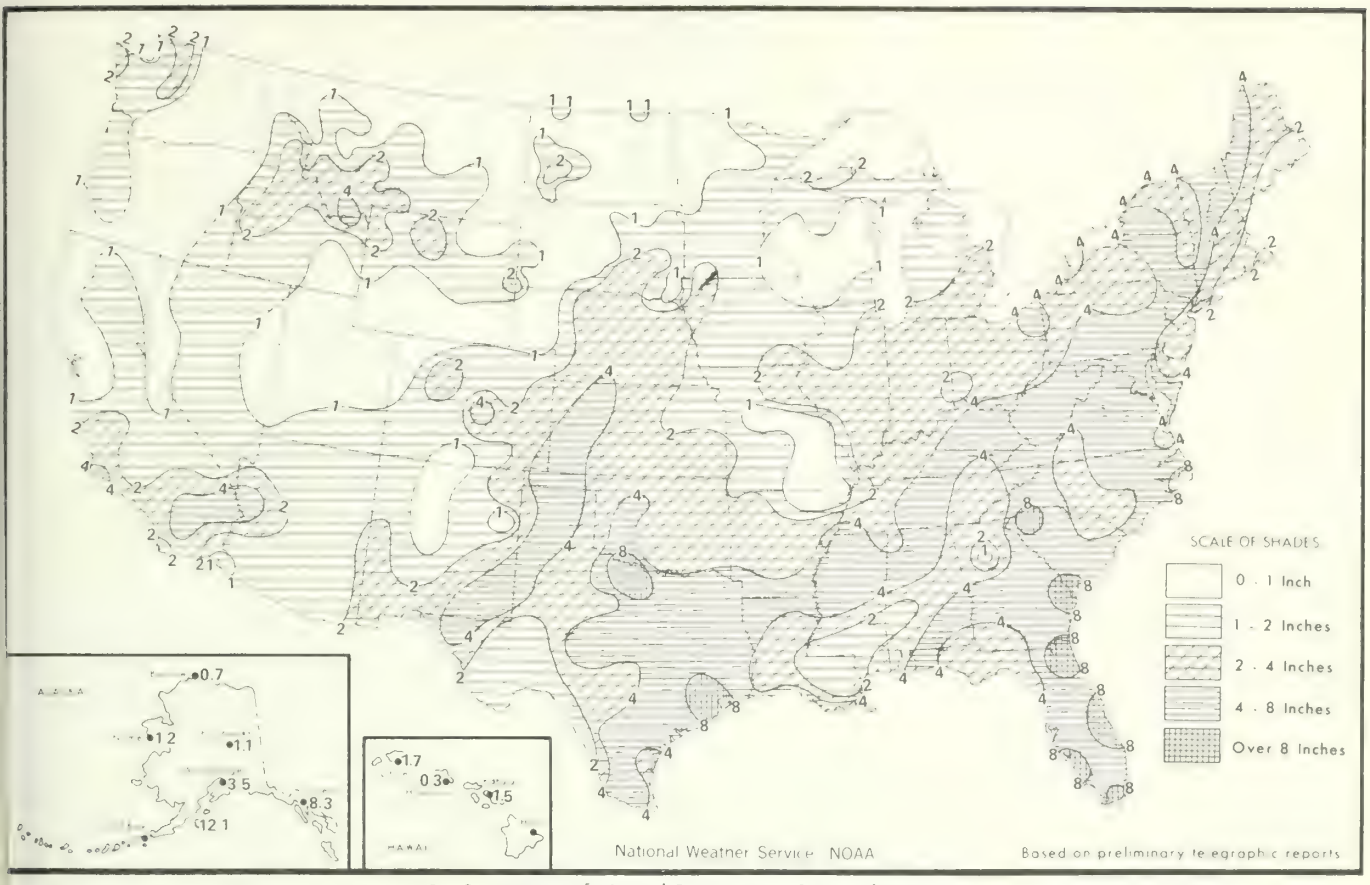


Chart II. A. Total Precipitation (Inches), September 1976



B. Percentage of Normal Precipitation, September 1976

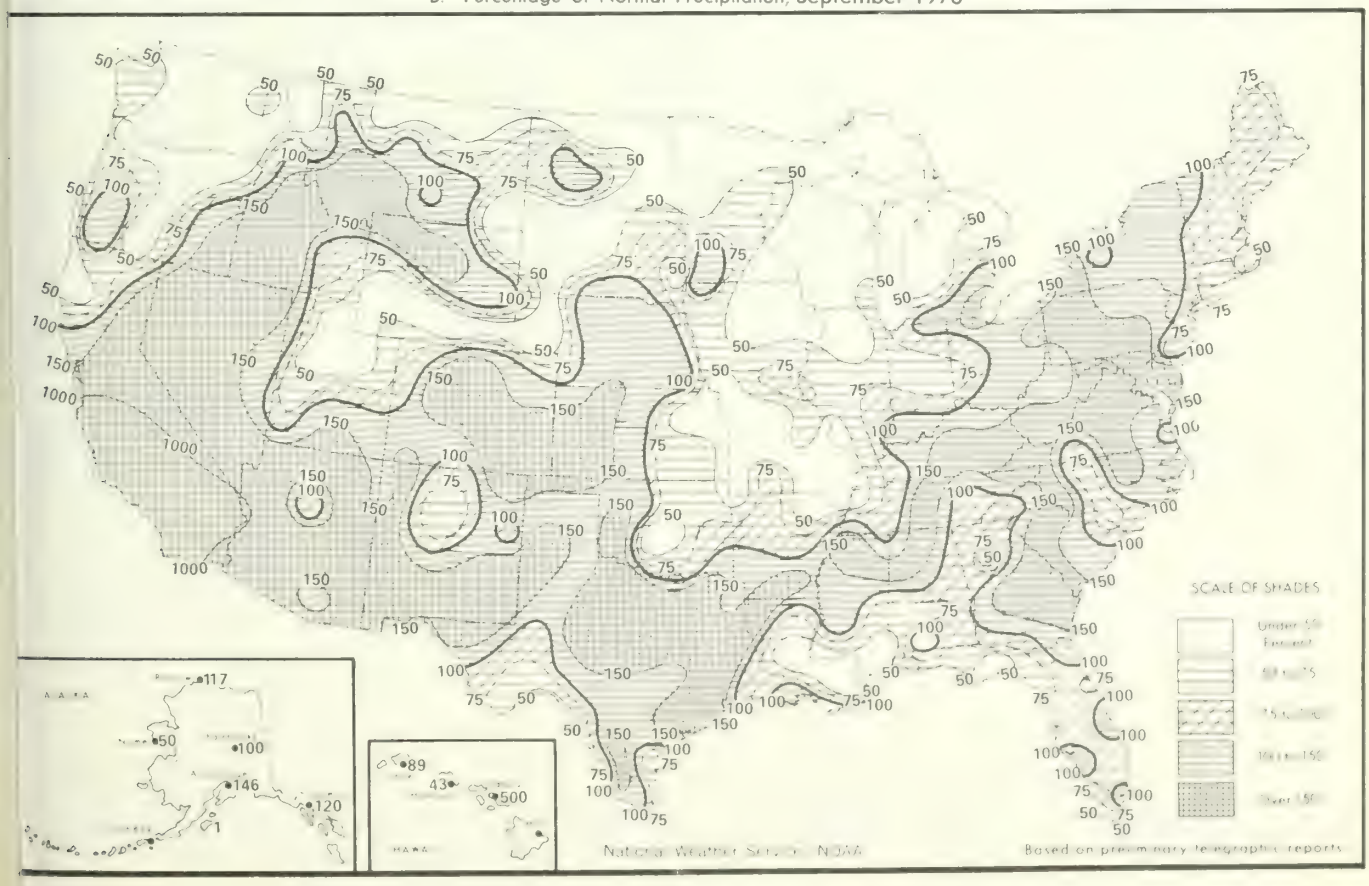
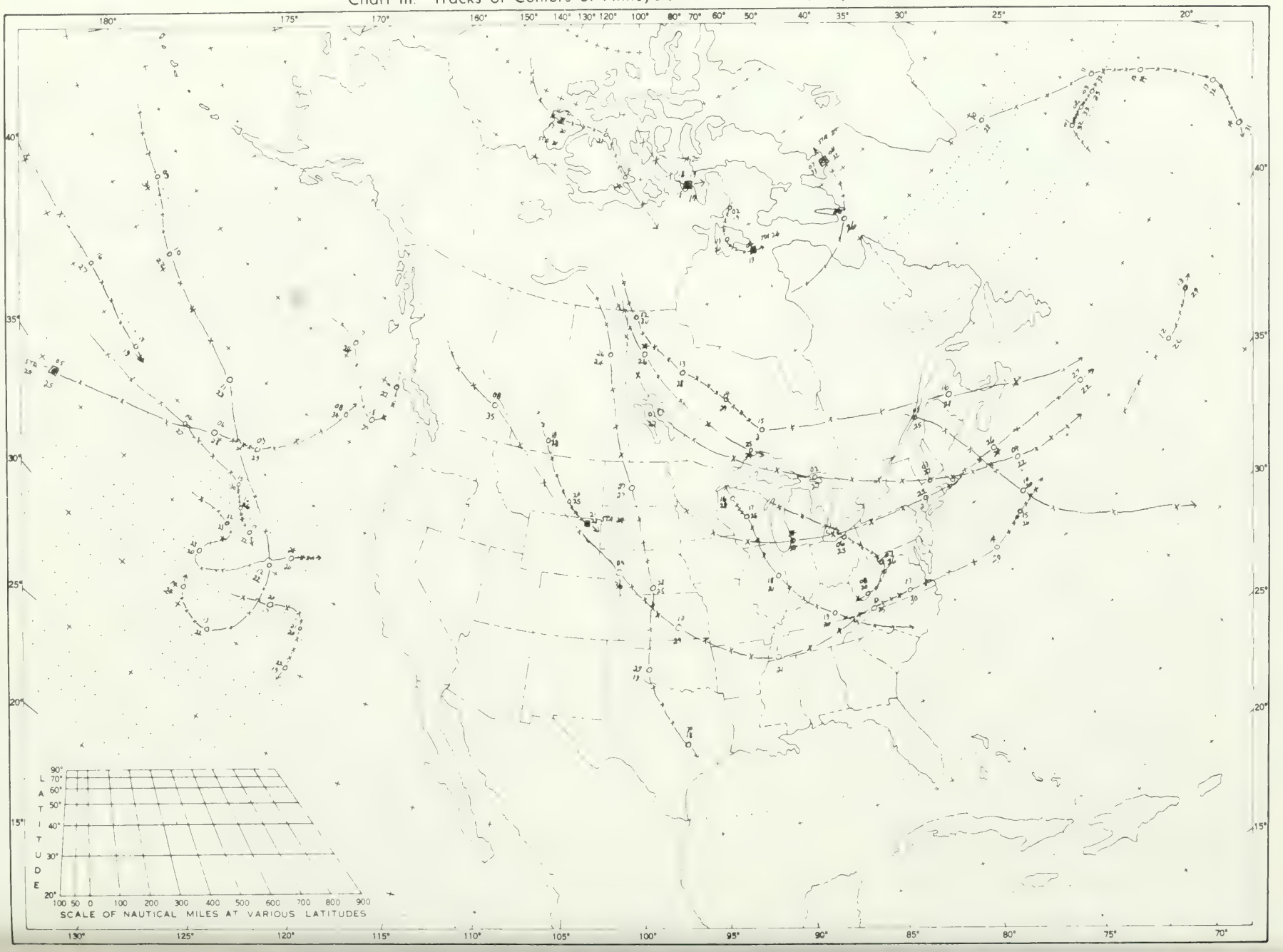
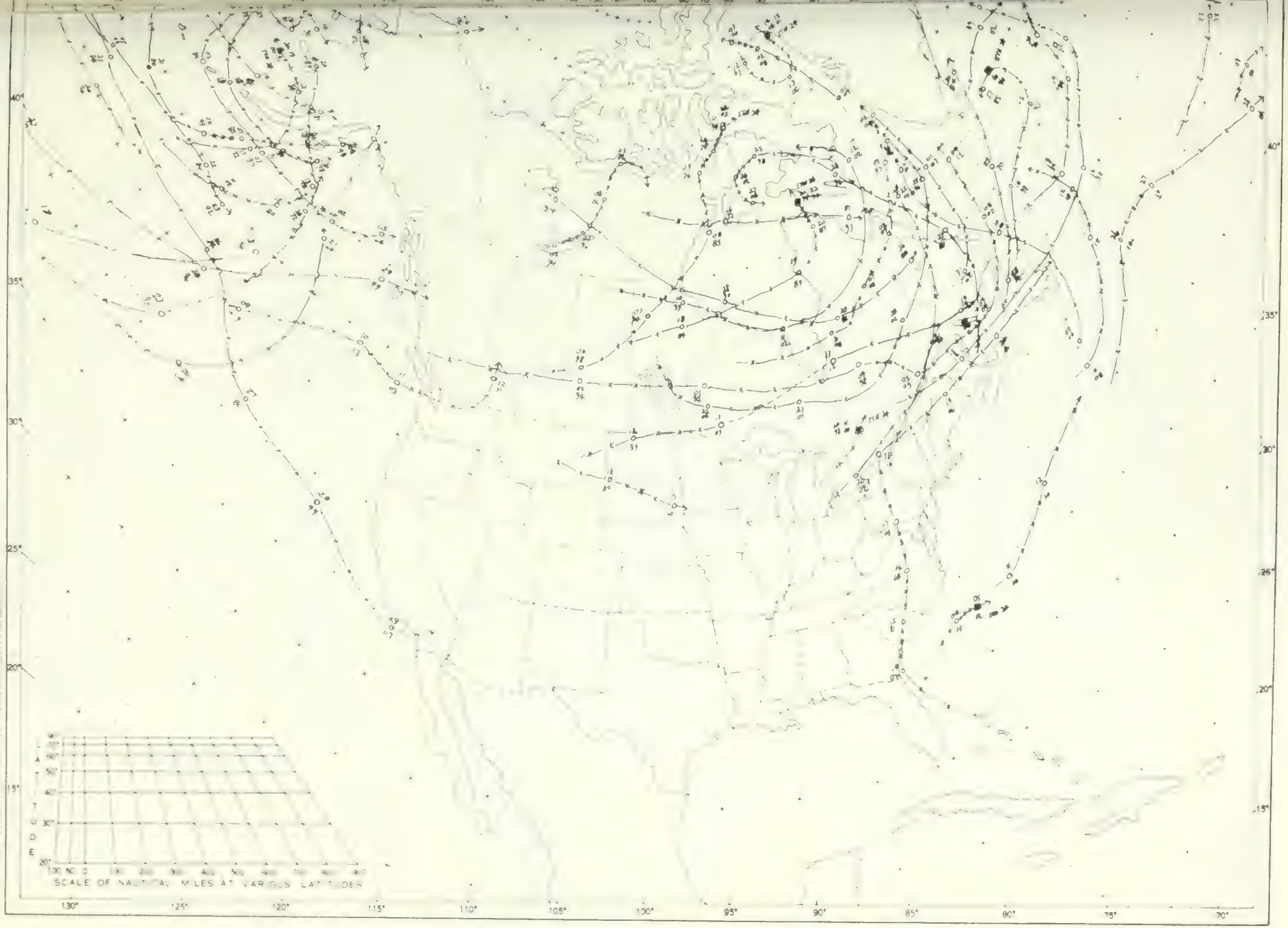


Chart III. Tracks of Centers of Anticyclones at Sea Level, September 1976





Circle indicates position of center at 7:00 a.m. E S T. Figure above circle indicates date, figure below pressure to nearest millibar. X's indicate intervening 6 hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included

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OCTOBER 1976 VOLUME 27 NUMBER 10

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

"I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND IS COMPILED FROM INFORMATION RECEIVED AT THE NATIONAL CLIMATIC CENTER, ASHEVILLE, NORTH CAROLINA 28801."

Daniel B. Mitchell

DIRECTOR
NATIONAL CLIMATIC CENTER

noaa NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION / ENVIRONMENTAL DATA SERVICE / NATIONAL CLIMATIC CENTER ASHEVILLE, N.C.

C O N T E N T S

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

SUBSCRIPTION PRICE: $10.20 a year including annual summary; $9.10 additional for foreign mailing; 70¢ single copy; $1.80 annual summary. Make checks payable to Department of Commerce, NOAA; send payments and orders to: National Climatic Center, Federal Building, Asheville, NC 28801. Attn: Publications.

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

OCTOBER 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

HIGHLIGHTS: From the western portion of the Rocky Mountains to the East Coast, the United States was much colder than normal. From Minnesota southward through Texas average temperatures for the month were 7 to 10° below normal. On through the East Coast averages were 5 to 8° below normal. This was the coldest October in recent years. There were no totally dry areas in the Nation but the northern Plains generally received less than 25% of the normal precipitation as the extreme drought continued there. Many areas in the Pacific Northwest recorded much below normal amounts of precipitation.

October began with moderate temperatures over most of the Nation but after the first few days a cold outbreak began in the northern Rocky Mountains and spread south and east. By the week ending on the 10th all but the extreme East and West were colder than normal. The Plains, from Minnesota to Texas, averaged 9 to 12° below normal. Many record cold temperatures were set. Moderate rain fell from southern Texas into Missouri where over 2 inches accumulated. However, rain was heavier in the East. From the Florida Panhandle into South Carolina and then on both sides of the Appalachians 2 to 6 inches were totaled during the week. Flooding was common from western North Carolina to south central Pennsylvania.

During the week ending on the 17th the cold air encompassed all of the Nation east of the Rocky Mountains Plateau. Although some warming took place in the Plains early in the week, another outbreak of cold air into the northern Plains at midweek sustained the colder than normal weather. Southerly winds warmed the west to 4 to 6° above normal. Precipitation was generally light over the Nation during the week. Exceptions were the south and southeast coastal areas where over 2 inches accumulated. Snow was reported from the northern Rockies through the Great Lakes and into western New York.

Cold air continued to flow into the United States during the week ending on the 24th and to spread over nearly all of the Country. The only exception was in the Valley and deserts of California where strong winds off the mountains warmed the area to above normal temperatures. Some parts of the northern Plains averaged over 15° below normal for the week. A low pressure system formed in the Gulf of Mexico early in the week and pushed moisture northward into east Texas, the middle Mississippi Valley, and the Ohio Valley before it moved northeastward and brought moderate, occassionally heavy, rain to the east. At the end of the week another fall storm was moving into the Pacific Northwest bringing with it strong winds, numerous rain showers, and snow at higher elevations. Snow showers again accounted for light precipitation from Montana eastward and for moderate amounts in western New York.

Early in the last week of October the new storm from the Northwest pushed rapidly southeastward and another moisture laden low pressure system formed in the south and moved rapidly northeastward. Heavy rain was not widespread but some local areas received over 1 inch in a few hours. A large cold high pressure system settled over the central United States and brought some of the season's coldest weather to most areas east of the Rockies. Record temperatures were set as far south as Augusta, GA where 26° was measured. The cold air circulated from the north in the eastern United States, then westward across the Gulf and into Texas where it was lifted in the foot hills and high plains to produce a record snowfall for so early in the year. Amarillo, TX, measured nearly 4 inches of snow in the last three days of the month.

HURRICANE HOLLY

OCTOBER 22 - 28, 1976

National Hurricane Center, NOAA
Miami, Florida

A relatively weak tropical wave moved westward off the African coast on October 14. It was not until the 20th that satellite pictures revealed a concentrated area of cloudiness centered near 18N 50W. At that time there was no evidence of a closed circulation at the surface. The system gradually became better organized. and by 1800 GMT on the 22d, a depression had formed, centered near 19.1N 55.8W. Moving generally northwestward at 10 kt, the depression intensified to tropical storm strength on the 23d, and to minimal hurricane strength on the following day. This intensity was maintained only for 24 hours, after which it dropped back to tropical storm strength, which persisted until the storm lost its identity as it merged with a strong cold front over the north Atlantic on the 28th.

Upper air conditions were not considered particularily favorable for tropical development when the system first reached the depression stage on the 22d. At 200 mb the flow was generally cyclonic over the developing storm as an upper low was located just to the north of the depression. By the time Holly became a hurricane, however, the upper low had opened into a trough lying some five degrees to the west of the hurricane's position. This configuration resulted in anticyclonic flow over the storm at 200 mb.

As the hurricane moved northeastward, the higher latitude portion of the upper trough moved eastward rapidly enough to overtake the storm. This interaction resulted in weakening of the storm and some loss of tropical structure even before it merged with the cold front.

Holly's lowest pressure was 990 mb on the 24th, and the highest wind reported by reconnaissance aircraft was 65 kt on the same day.

PRELIMINARY TRACK

MONTH	DAY	HOUR (GMT)	POSITION LATITUDE	POSITION LONGITUDE	PRESSURE (MBS)	WIND (KTS)	CLASSIFICATION
OCT.	22	1800	19.1	55.8	1006	25	Tropical depression
	23	0000	19.8	56.4			
		0600	20.9	56.7			
		1200	22.0	57.0			
		1800	22.5	58.0	1002	35	Tropical storm.
	24	0000	23.3	58.3			
		0600	24.2	58.2	995	45	
		1200	24.9	58.1	990	65	Hurricane.
		1800	25.8	57.8			
	25	0000	27.2	57.5	995		
		0600	28.7	56.7			
		1200	30.4	55.7	1000	50	Tropical storm.
		1800	31.7	54.0			
	26	0000	32.2	53.0			
		0600	32.3	52.1			
		1200	32.5	51.3		40	
		1800	32.6	50.3			
	27	0000	33.2	50.1			
		0600	33.9	50.0			
		1200	34.6	49.5			
		1800	35.6	48.0			
	28	0000	37.1	45.9			
		0600	38.8	43.5		35	
		1200	42.1	39.5			
		1800	44.8	35.0			Extratropical
	29	0000	46.5	30.0			

CORRECTION

HURRICANE CANDICE - AUGUST 1976 - PAGE 9 -
DATES SHOULD READ AUGUST 19 THRU 24 INSTEAD OF SEPTEMBER 19 THRU 24.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

OCTOBER 1976

STATE	Temperature — Monthly extremes — Highest: Station	°F	Date	Lowest: Station	°F	Date	Precipitation — Monthly extremes — Greatest: Station	In	Least: Station	In
[illegible]	[illegible] Stations	92	4	Valley Head	21	29	Geneva 2	9.72	Dayton 1 N	1.21
[illegible]	[illegible] FAA AP	66	4	2 Stations	-41	14	Mac Leod Harbor	36.03	Northway FAA AP	.19
[illegible]	Sacaton	103	1	Fort Valley	5	29	Kofa Mountains	6.33	Teec Nos Pos	.06
[illegible]	[illegible] Stations	91	3	Gilbert	18	18	Cove	8.41	Green Forest	1.56
[illegible]	[illegible] N Idaho Springs	103	7	White Mountain 2	0	21	Pacoima Dam FC 33 A E	2.97	33 Stations	.02
[illegible]	[illegible]	93	2	Westcliffe	8	28	[illegible] Lake	3.08	6 Stations	T
[illegible]	2 Stations	76	8	[illegible] Hill Farm	11	28	Agawam 1 NE	8.29	Brooklyn	1.00
[illegible]	3 Stations	98	8	2 Stations	21	28	Bridgeville 1 NW	9.84	Lewes 1 SW	2.89
[illegible]	Clewiston U.S. Engineers	97	9	Smith Creek	31	22	St. Marks 5 SSE	13.33	Canal Point USDA	.26
[illegible]	[illegible]sville	92	17	2 Stations	21	30	Warrenton	9.30	Cedartown	2.40
[illegible]	Koloa LN (Mak) 940.1	93	4	Mauna Loa Slope Observatory	30	29	Honomu Mauka 138	21.24	7 Stations	.00
[illegible]	[illegible]	89	1	Henry	5	18	Moscow-Univ. of Idaho	2.41	2 Stations	T
[illegible]	[illegible]	92	2	Mount Carroll	12	28	[illegible]	4.19	Chicago O'Hare WSO AP	1.41
[illegible]	[illegible]	89	3	Paoli Radio WVAK	15	28	Mount Vernon	.48	Anderson Waterworks	1.84
[illegible]	[illegible]	96	1	2 Stations	10	11	[illegible]ton	3.46	Sioux City 8 N	.46
[illegible]	2 Stations	97	2	Atwood	15	26	McCune 6 SW	7.08	2 Stations	.00
[illegible]	Hickman 1 E	87	15	Blaine	22	28	Oneida	6.62	[illegible] Pond 8 N	2.28
[illegible]	Winnsboro	93	3	2 Stations	26	21	Hackberry 8 SSW	7.47	Monroe FAA AP	1.13
[illegible]	2 Stations	77	8	2 Stations	12	28	Eastport	8.80	Bangor FAA AP	1.25
[illegible]	Cumberland 2	82	13	Oakland 1 SE	15	28	Frederick 3 E	14.63	Patuxent River	1.92
[illegible]	Chester 2	83	7	Chester 2	6	28	Provincetown 1 N	7.71	Birch Hill Dam	1.20
[illegible]	2 Stations	88	1	Kenton U.S. Forest	1	23	Battle Creek	3.55	Stambaugh 1 S	.19
[illegible]	Browns Valley	93	1	Isabella 1 W	-8	27	Hoyt Lakes 5 N	1.41	High Landing 2 NW	.00
[illegible]	[illegible] FAA AP	93	3	Pickens	24	21	Ripley	7.06	Oakley Exp. Station	1.20
[illegible]	3 Stations	96	3	Marble Hill	13	29	[illegible]	7.83	Tarkio	.17
[illegible]	[illegible]ville 8 NNE	92	2	Orchard 10 N	6	21	Gallatin Gateway 9 SSW	2.56	2 Stations	.00
[illegible]	Pawnee City	95	1	2 Stations	7	19	Guide Rock 1 S	2.05	Osmond	.00
[illegible]	[illegible] FAA Exp. Farm	96	1	Rand Ranch Palisade	1	19	Currant Highway Station	3.10	3 Stations	.00
[illegible]	Derby	78	7	Mount Washington	-2	24	Mount Washington	10.36	Otter Brook Lake	3.76
[illegible]	[illegible]ington 2 NNE	86	9	Newton St. Pauls Abbey	17	29	Willard Park	8.22	Mahwah	1.68
[illegible]	8 Stations	88	11	Eagle Nest	1	20	Duval Potash Mine	2.82	4 Stations	.00
[illegible]	Watkins Glen 2 NW	79	15	Old Forge	3	28	Frost Valley	10.59	Wilson 2 NE	2.58
[illegible]	5 Stations	89	17	Banner Elk	12	28	Transou	13.48	Bodie Island	1.53
[illegible]	Hillsboro	91	1	Colgate	0	27	2 Stations	.81	2 Stations	.00
[illegible]	3 Stations	83	6	3 Stations	12	29	Marietta Lock 1	5.71	Stryker	1.81
[illegible]	6 Stations	97	2	Taloga	16	20	Hee Mountain Town	9.37	Regnier	.08
[illegible]	Powers	94	8	2 Stations	5	23	Valsetz	5.26	3 Stations	.00
[illegible]sylvania	3 Stations	80	16	Austin[illegible] 2 W	9	28	Gettysburg	13.11	Jamestown 2 NW	2.46
[illegible]	3 Stations	95	28	Adjuntas Substation	57	26	Cerro Gordo-Ciales	22.77	Isabela Substation	2.56
[illegible] Island	Providence WSO AP	79	7	2 Stations	20	28	Providence WSO AP	6.52	Newport	1.59
[illegible] Carolina	3 Stations	90	8	5 Stations	22	29	Hogback Mountain	14.37	Loris 1 S	2.46
[illegible] Dakota	2 Stations	92	1	Deerfield 1 NW	4	19	Huron WSO AP	1.26	Pierre FAA AP	.08
[illegible]ssee	2 Stations	89	5	3 Stations	18	30	Ripley	8.11	Sevierville 1 SE	2.79
[illegible]	[illegible]sport	95	4	Marathon	17	20	Canyon Dam	12.79	Bunker Hill 5 N	.00
[illegible]	Saint George	92	1	Woodruff	1	19	Veyo Power House	3.19	5 Stations	.00
[illegible]	Morrisville 2	76	8	Mount Mansfield	9	27	Dorset 1 S	7.69	Saint Albans Bay	1.23
[illegible]	Holland 1 E	86	9	3 Stations	15	28	Gordonsville 3 S	14.04	Langley Air Force Base	2.38
[illegible] Islands	Cruz Bay	90	28	2 Stations	67	31	Fountain	7.95	Charlotte Amalie 2	3.21
[illegible]	3 Stations	88	2	Mazama	12	19	Spruce	7.31	3 Stations	.15
[illegible] Virginia	Parkersburg WSO CI	83	5	Spruce Knob	19	28	Bartow	11.22	New Cumberland	3.26
[illegible]	Hatfield Hydro Plant	94	1	[illegible] River 5 E	-3	27	2 Stations	2.93	Stanley	.16
[illegible]	Colony	91	2	Darwin Ranch	-6	18	Atlantic City Ore Mine	2.32	4 Stations	T

CLIMATOLOGICAL DATA

METRIC UNITS

OCTOBER 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
ALABAMA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
BIRMINGHAM	189	995.9	1018.5	20.6	7.7	14.1	-3.3	28.3	4	-1.1	29	0	1	9.4	77	40	-25	16	6	0	0	0	0.7	1	12.1	SE	30	14	2	15	5.5	57
HUNTSVILLE	190	995.3	1018.6	19.1	6.6	12.8	-3.9	27.2	4	-1.1	29	0	2	6.7	70	111	46	57	8	0	0	0	0.7	3	10.7	30	20	14	3	14	5.3	
MOBILE	64	1009.8	1017.6	22.3	10.3	16.3	-4.2	30.6	3	2.8	21	0	0	9.4	68	144	79	65	4	2	0	0	1.3	1	9.4	15	30	15	7	9	4.5	
MONTGOMERY	59	1010.8	1018.2	21.8	8.9	15.4	-3.4	29.4	4	0.0	29	0	1	9.4	72	45	-12	16	8	0	0	0	0.8	2	13.4	S	30	14	6	11	4.7	60
ALASKA												8																				
ANCHORAGE	35	1000.0	1004.9	3.9	-2.4	0.8	-0.8	11.1	5	-14.4	29	0	17	-2.8	76	33	-4	20	10	0	290	305	0.8	2	11.2	16	5	4	2	25	8.3	36
ANNETTE	34	1011.2	1015.2	11.6	5.0	8.3	0.1	14.4	9	0.0	19+	0	2	5.0	80	290	-164	44	17	0	38	25	1.6	16	16.5	16	26	1	4	26	9.0	
BARROW	9	1012.5	1013.2	-7.3	-13.1	-10.2	-0.9	-1.1	17+	-22.8	31	0	31	-12.8	83	15	1	3	21	0	211	152	2.6	3	13.4	2	26+	0	2	29	9.4	
BARTER ISLAND	12	1010.5	1012.6	-6.9	-15.1	-11.0	-2.3	0.0	17	-29.4	25	0	31	-12.8	82	13	-7	3	14	0	132	127	1.2	19	20.6	10	19	3	9	19	7.8	
BETHEL	38	999.0	1004.7	2.6	-4.8	-1.1	-0.1	11.1	1	-19.4	28+	0	24	-3.3	84	13	-20	4	13	0	46	25	1.9	4	11.6	2	24	1	9	21	8.2	
BETTLES	196	984.8	1009.7	-4.1	-10.3	-7.2	-0.6	5.6	6	-24.4	30	0	31			38	6	9	15	0	709	457	2.6	36								
BIG DELTA	386			0.3	-8.0	-3.8	-0.1	11.7	5	-26.7	27	0	27			4	-10	2	6		152	76										
COLD BAY	29	996.6	1000.3	6.4	1.4	3.9	-0.3	11.1	1	-12.2	28	0	8	1.7	84	143	34	42	30	0	175	152	0.9	13	18.3	14	21	0	1	30	9.4	
FAIRBANKS	133	990.2	1007.5	-0.8	-8.2	-4.5	-0.7	10.6	6+	-26.7	30	0	28	-8.3	75	23	4	56	12	0	373	254	0.7	36	7.6	23	7	0	8	23	8.6	
GULKANA	479			2.8	-5.6	-1.4	1.5	11.1	5	-15.0	29+	0	28			6	-17	3	6		51	25										
HOMER	19	1000.7	1003.3	6.4	-1.3	2.6		12.2	1	-13.3	28	0	19	-0.6	81	96	10	18	17	0	556	356	0.8	9	14.3	24	26	2	4	25	8.2	
JUNEAU	4	1011.2	1012.0	8.2	3.7	6.0	0.6	12.2	6+	-2.8	24	0	4	4.4	91	157	-42	42	22	0	30	T	3.3	12	17.4	12	26	0	2	29	9.5	17
KING SALMON	15	1000.7	1002.6	4.0	-4.6	-0.3	-1.2	11.1	5	-21.7	29+	0	19	-3.3	81	21	-30	6	14	0	51	25	1.9	8	14.3	9	19+	2	6	23	8.2	
KODIAK	4	999.3	1003.5	7.7	0.4	4.1	-0.8	14.4	6	-11.1	29	0	13	1.1	79	140	-19	32	17	0	15	25	0.6	26	13.4	30	30+	3	6	22	7.9	
KOTZEBUE	3	1008.1	1008.7	-1.8	-6.2	-4.0	0.7	6.7	1	-17.2	29+	0	30	-7.2	80	11	-4	4	9	0	152	102	3.8	4	17.4	36	26+	9	3	19	6.8	
MC GRATH	105	993.6	1006.6	-1.1	-9.1	-5.1	-1.3	10.0	1	-29.4	27	0	31	-7.8	80	35	4	10	15	0	338	102	0.7	35	9.8	1	30	3	6	22	8.2	
NOME	4	1006.4	1007.2	1.2	-4.3	-1.6	0.4	9.4	6+	-13.9	28+	0	19	-6.1	70	35	-1	11	8	0	74	25	2.4	4	13.9	12	13	8	6	17	6.6	39
ST. PAUL ISLAND	7			5.0	1.4	3.2	0.0	8.3	4+	-3.9	30+	0	12			40	-40	8	20	0	74	76			17.4	5	24	0	5	26	8.8	
SUMMIT	731																								8.9	8	12+					
TALKEETNA	105			3.5	-6.2	-1.3	-1.4	11.1	1	-22.2	27	0	25			93	29	22	15	0	836	483			7.6	18	7					
UNALAKLEET	5			1.8	-6.1	-2.2		10.6	2+	-20.6	27	0	22			5		2	8		18	T			15.6	8	13	4	8	19	7.6	
VALDEZ	7			4.9	0.3	2.6	-0.4	10.0	6	-8.9	28	0	13			242	71		21	0	655				9.4	13	30					
YAKUTAT	9	1007.8	1008.8	7.6	1.7	4.7	-0.2	11.7	2	-4.4	24+	0	9	3.3	92	500	4	152	23	1	320	127	1.7	11	14.3	13	30+	0	2	29	9.5	
ARIZONA																																
FLAGSTAFF	2135	789.0	1017.3	17.4	-0.8	8.3	0.0	24.4	10	-10.6	29	0	20	-3.9	49	19	-16	11	6	1	T	T	0.5	4	11.6	NE	27	18	5	8	4.0	84
PHOENIX	339	974.9	1013.4	29.7	16.9	23.3	1.0	35.6	10+	10.6	29	12	0	5.6	37	18	6	15	4	3	0	0	1.7	11	21.0Y	E	13	19	7	5	3.2	88
TUCSON	788	925.8	1012.9	26.3	13.4	19.9	-1.3	31.7	10+	7.2	30	0	0	5.6	44	9	-7	4	4	1	0	0	1.8	13	15.6	SE	8	18	7	6	3.0	86
WINSLOW	1492	853.7	1018.2	19.9	2.9	11.4	-2.6	27.2	11+	-5.0	29	0	9	-1.7	48	10	-7	6	4	1	0	0	0.5	21	14.8	10	27	16	6	9	4.0	
YUMA	59	1005.4	1012.5	31.1	16.8	24.0	-0.4	36.1	7	10.0	29	16	0	6.7	39	9	2	9	1	2	0	0	1.4	1	13.0	NE	21	23	6	2	2.1	92
ARKANSAS																																
FORT SMITH	136	1002.7	1019.3	19.8	5.8	12.8	-4.5	31.1	3+	-1.7	21	0	1	6.7	70	137	49	51	9	3	0	0	0.6	2	9.8	N	5	14	3	14	5.3	62
LITTLE ROCK	78	1009.5	1019.2	20.7	8.0	14.3	-2.6	32.8	2	0.6	18	3	0	6.7	64	164	88	67	8	1	0	0	0.7	31	8.9	SW	23	11	9	11	5.5	74
CALIFORNIA																																
BAKERSFIELD	145	998.3	1015.9	28.4	14.9	21.7	2.3	35.6	7	8.9	30+	6	0	10.6	53	3	-4	3	1	0	0	0	0.6	1	9.4	33	1	19	7	5	2.9	
BISHOP	1252	876.1		24.9	3.4	14.2	0.2	30.6	8+	-3.3	29	0	5			1	-6	1	1		0	0			17.0Y		1	23	5	3	2.3	
BLUE CANYON	1609	841.9	1016.8	18.7	8.3	13.6	1.3	25.6	12	2.2	25	0	0	-1.1	42	22	+83	22	2		0	0	0.4	12	8.0	10	26					
EUREKA U	13			15.9	8.9	12.4	0.0	24.4	12	5.6	26+	0	0			7	-75	3	7		0	0			10.3	N	3+	9	10	12	5.9	48
FRESNO	100	1004.4	1016.2	26.2	10.6	18.4	0.5	32.2	9	5.0	31	1	0	10.6	66	39	29	39	2	1	0	0	0.3	33	7.6	11	1	20	6	5	2.7	91
LONG BEACH	8	1013.5	1014.8	28.0	16.7	22.4	3.0	37.8	9	11.1	31+	2	0	13.9	67	2	-3	1	3	0	0	0	0.9	27	8.9	7	26	17	8	6	3.8	
LOS ANGELES	30	1011.2	1014.7	24.6	16.8	20.7	2.2	36.1	9	11.7	31	2	0	15.0	76	38	33	37	3	1	0	0	1.7	26	12.5Y	N	26	15	12	4	4.0	
LOS ANGELES U	82			26.8	16.2	21.5	1.3	36.7	9	11.7	31+	4	0			6	-1	6	2		0	0			6.7	NE	26+	18	8	5	3.5	83
MT SHASTA R	1080	895.0	1019.5	20.6	2.2	11.4	0.7	28.3	8	-3.3	27	0	9	0.6	56	9	-55	7	3		0	0	0.6	36								
OAKLAND	2	1016.9	1017.1	21.9	12.8	17.4	1.2	31.1	13	8.3	28	0	0	11.7	74	11	-17	13	1	1	0	0	1.7	29	10.7	2	26	19	7	5	3.4	
RED BLUFF	104	1004.1	1016.6	28.7	11.5	20.1	1.8	36.7	6	4.4	28	8	0	5.6	45	2	-28	2	2	1	0	0	1.5	34	14.3	SE	1	20	4	7	3.2	92
SACRAMENTO	5	1015.2	1016.0	27.3	10.6	18.9	1.6	33.9	7	5.6	30	5	0	7.8	57	1	-25	1	1	0	0	0	0.3	26	10.7	NW	26	22	6	3	2.4	90
SANDBERG R	1377	864.2	1016.2	19.8	10.9	15.4	0.5	26.7	10	5.0	25	0	0	-0.6	42	8	-1	5	3		0	0	2.5	2	19.7	8	26					
SAN DIEGO	4	1013.5	1014.7	25.4	18.1	21.8	2.8	33.3	9	13.3	31+	2	0	15.0	69	10	1	10	2	2	0	0	2.0	30	8.9	S	21+	18	6	7	3.5	75
SAN FRANCISCO	2	1016.3	1017.0	21.4	11.1	16.3	0.2	31.1	12+	6.7	29	0	0	9.4	69	9	-16	11	1	1	0	0	2.9	30	10.3	29	7	18	9	4	3.4	
SAN FRANCISCO U	16			21.2	13.0	17.1	0.8	32.8	12	10.0	28	2	0			10	-17	12	1													
SANTA MARIA	72			23.5	10.2	16.8	1.1	32.2	13	2.8	31+	1	0			6	-7	6	2		0	0						17	6	8	3.8	
STOCKTON	7	1015.2	1016.3	28.0	11.7	19.9	2.4	33.3	12+	5.6	30	6	0	9.4	57	7	-12	7	1	1	0	0	1.5	31	9.4	36	26+	19	7	5	3.1	
COLORADO																																
ALAMOSA	2297	773.5		14.7	-6.2	4.3	-2.4	23.9	10	-15.0	19	0	28			13	-5	12	2	0	165	152						18	5	8	3.6	

CLIMATOLOGICAL DATA

METRIC UNITS

OCTOBER 1976

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind				No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
											No of days							No of days		Snow, ice pellets		Resultant speed	Resultant direction	Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm or more	With thunderstorms	Total	Maximum depth on ground			Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
COLORADO	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m s		m s							%
COLORADO SPRINGS	1873	813.1	1019.3	14.8	0.4	7.6	-2.7	25.6	11	-8.9	28	0	19	-4.4	50	12	-11	6	6	0	64	25	1.6	4	13.9	1	6	16	7	8	4.0	
DENVER	1610	838.5	1017.8	17.3	0.9	9.1	-2.0	27.8	10	-7.2	19	0	15	-3.9	47	24	-5	16	4	0	183	127	1.1	17	13.4	N	17	17	6	8	3.5	78
GRAND JUNCTION	1476	854.4	1018.0	19.1	2.2	10.7	-2.1	27.2	1	-5.0	19	0	10	-6.1	35	8	-15	8	1	1	C	0	0.6	6	14.8	NE	6	18	5	8	3.5	83
PUEBLO	1428	857.4	1018.0	17.2	1.0	9.1	-3.4	28.3	11	-5.6	20	0	16	-0.6	61	25	1	18	5	0	61	51	0.8	4	18.3	N	6	16	5	10	4.3	83
CONNECTICUT																																
BRIDGEPORT	7	1015.9	1016.6	15.6	8.3	11.9	-1.8	22.8	9	-1.1	28	0	1	8.9	81	168	97	60	8	1	0	0	2.1	30	17.9	27	21+	11	5	15	6.1	
HARTFORD	52	1009.5	1016.0	15.6	4.3	9.9	-1.5	24.4	7	-5.0	19	0	9	3.9	70	104	27	40	9	0	C	0	1.4	28	15.6	S	9	8	6	17	6.6	47
DELAWARE																																
WILMINGTON	23	1014.2	1017.3	16.3	6.5	11.4	-2.6	25.0	9	-4.4	28	0	6	5.6	71	155	89	46	13	0	0	0	1.3	31	14.3	20	9	11	4	16	6.1	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1005.8	1017.8	16.4	4.2	10.3	-3.0	26.1	7	-7.2	29	0	10	5.0	73	200	131	67	12	1	C	0	1.0	29	12.5	28	9	11	3	17	6.2	
WASHINGTON NATIONAL	3	1015.6	1017.9	17.3	8.7	13.0	-2.4	25.6	7	-1.1	29	0	2	7.8	74	197	130	48	12	1	C	0	1.2	32	17.0	SE	9	10	4	17	6.3	48
FLORIDA																																
APALACHICOLA U	6	1016.6	1017.2	23.3	12.3	17.8	-3.7	28.3	3+	5.0	29	0	0	12.8	76	193	120	93	8	4	C	0	1.5	6	9.8	NW	25	11	9	11	5.5	70
DAYTONA BEACH	9	1014.9	1016.3	26.3	16.4	21.3	-1.6	32.2	8	8.9	14	1	0	16.1	73	48	-92	39	7	1	C	0	1.7	3	12.5	1	28	9	12	10	5.7	
FORT MYERS	5	1014.9	1015.2	27.7	17.4	22.6	-2.1	31.1	7+	11.1	22	0	0	17.2	76	50	-61	14	6	2	C	0	2.2	4	10.3	4	28+	12	12	7	4.8	
JACKSONVILLE	8	1016.3	1017.4	24.5	11.8	18.2	-3.2	31.7	8	3.9	22	0	0	13.9	78	41	-74	18	6	3	C	0	1.1	2	11.6	NE	28	10	10	11	5.8	67
KEY WEST	1	1013.5	1014.4	28.8	23.8	26.3	-0.1	31.1	9+	20.0	22	0	0	21.7	77	82	-60	29	10	3	C	0	3.3	7	11.2	NE	11	8	14	9	5.4	80
LAKELAND U	65			27.1	16.1	21.6	-1.9	32.2	6	9.4	22	1	0			13	-59	10	5		C	0						9	15	7	5.3	66
MIAMI	2	1014.9	1015.0	27.8	21.4	24.6	-0.8	30.6	9+	15.0	22	0	0	20.6	78	112	-96	49	9	2	C	0	2.3	4	11.6	3	12	8	16	7	5.3	
ORLANDO/MC COY AFB	29	1012.2	1016.0	28.0	17.1	22.6	-0.9	32.8	8	11.1	22	3	0	16.1	69	19	-85	13	5	1	C	0	1.7	2	11.2	3	28	10	8	13	5.9	
PENSACOLA	34	1013.5	1017.6	22.8	11.6	17.2	-3.9	29.4	3	3.3	21	0	0	11.7	72	212	133	114	8	3	C	0	1.6	2	10.3	15	30	11	11	9	4.9	
TALLAHASSEE	17	1015.2	1017.5	24.1	10.8	17.4	-3.3	30.6	5+	2.2	22	0	0	12.2	76	299	225	124	9	3	C	0	1.5	3	8.9	17	30+	14	6	11	5.2	
TAMPA	6	1015.6	1016.0	26.9	16.3	21.7	-2.1	30.6	7+	9.4	22	0	0	15.6	69	33	-31	26	7	4	C	0	1.8	5	8.9	9	29	10	9	12	6.0	54
WEST PALM BEACH	5	1014.6	1015.2	28.5	19.9	24.2	-0.9	32.8	9	12.8	27	2	0	17.8	69	95	-127	57	7	1	0	0	2.2	4	13.4	36	11	7	18	6	5.5	
GEORGIA																																
ATHENS	244	988.8	1017.7	20.2	8.6	14.4	-2.6	26.7	7	-2.2	29	0	1	8.3	71	158	89	88	7	1	C	0	0.5	34	8.9	29	20	13	7	11	5.1	
ATLANTA	308	980.7	1017.7	19.3	7.6	13.4	-3.4	26.7	4+	-2.2	29	0	1	6.7	69	90	27	35	8	0	C	0	0.8	35	9.8	33	31	14	3	14	5.3	64
AUGUSTA	41	1012.5	1017.7	22.7	8.1	15.4	-2.4	28.9	6	-3.3	29	0	2	10.0	76	129	73	50	9	3	C	0	1.0	1	9.4	34	20	15	7	9	4.7	
COLUMBUS	117	1003.7		21.5	9.4	15.5	-3.1	28.9	4	-1.7	29	0	1	10.6	78	129	78	60	8	0	C	0	1.0	2	9.4	33	31+	13	6	12	4.9	
MACON	108	1005.1	1018.0	23.4	9.3	16.4	-2.3	31.7	4	-2.2	29	0	1	11.1	75	99	40	36	9	1	0	0	0.8	36	8.9	NW	20	13	6	12	4.9	67
ROME	194			20.6	6.9	13.8	-2.3	28.3	4+	-3.9	29	0	3			60	-14	27	9		0	0										
SAVANNAH	14	1015.9	1017.8	22.8	11.1	16.9	-2.6	28.9	8	-1.1	29	0	1	10.6	69	121	49	80	7	2	C	0	1.0	36	10.7	W	9	12	6	13	5.2	65
HAWAII																																
HILO	8	1014.6	1015.8	28.6	20.4	24.6	0.7	32.8	2	17.2	18	1	0	20.0	78	288	10	145	23	1	0	0	0.3	19	8.5	SE	3	4	8	19	7.7	36
HONOLULU	7	1014.9	1015.4	30.6	21.8	26.2	0.1	32.2	22	18.3	31	1	0	16.1	56	11	-27	9	3	0	0	0	3.6	6	13.0	NE	9	12	12	7	5.2	68
KAHULUI	15	1012.9		30.6	20.6	25.6	0.4	32.8	4	17.2	21+	3	0			18	-9	6	7	0	0	0	4.3	5	13.9	E	25	12	10	9	5.0	68
LIHUE	31	1011.5	1016.6	28.1	21.8	24.9	-0.2	29.4	5+	18.9	1	0	0	20.0	76	61	-37	17	14	0	0	0	3.4	5	9.8	E	14	8	17	6	5.6	65
IDAHO																																
BOISE	865	919.4	1020.5	18.2	2.7	10.4	-0.7	27.8	9	-3.9	19	0	5	-0.6	52	13	-7	9	3	0	C	0	0.4	12	8.9	W	24+	16	7	8	4.1	78
LEWISTON	431			19.0	5.7	12.4	1.4	29.4	1	0.0	19	0	1			29	1	14	4		C	0			11.6Y		31	7	10	14	6.3	
POCATELLO	1358	866.2	1020.3	16.6	-0.2	8.2	-0.9	26.7	1	-7.2	19	0	17	-2.2	53	46	27	46	2	0	C	0	1.7	23	14.3	SW	25	13	7	11	4.8	78
ILLINOIS																																
CAIRO U	96			18.5	7.8	13.2	-3.3	28.3	4+	0.6	28	0	0			69	1	27	9		0	0			10.7	SW	30					59
CHICAGO O HARE	201	993.9	1018.5	14.7	3.3	9.1	-3.1	28.3	3	-5.6	28	0	10	2.2	64	36	-23	20	10	0	41	51	1.6	29	13.0	19	14	8	10	13	5.9	
CHICAGO MIDWAY	185	995.9	1018.8	14.1	4.3	9.2	-3.8	28.9	4+	-3.9	28	0	7	2.8	66	59	-8	35	10	2	T	T	1.2	28	13.0	S	14	8	10	13	5.9	51
MOLINE	177	997.6	1019.4	14.4	2.1	8.2	-4.2	31.7	2	-6.7	28	0	11	0.6	63	54	-14	37	8	0	C	0	0.8	31	12.1	SW	14	13	11	7	4.9	58
PEORIA	199	994.9	1019.4	14.6	2.3	8.5	-4.3	30.6	2	-6.7	28	0	11	2.2	69	63	-1	32	8	0	T	T	0.7	30	11.6	NW	21	9	8	14	5.7	56
ROCKFORD	221	991.9	1019.4	13.6	0.9	7.3	-4.2	30.0	3	-8.3	28	0	13	0.6	66	49	-23	32	7	0	T	T	0.9	31	12.1	21	14	10	6	15	5.8	
SPRINGFIELD	179	997.0	1019.5	16.0	3.3	9.7	-4.0	31.7	3	-5.0	22	0	10	3.3	70	76	-2	35	6	0	T	T	0.6	31	12.5	N	5	11	9	11	5.3	59
INDIANA																																
EVANSVILLE	116	1005.1	1019.1	17.9	4.7	11.3	-3.2	28.9	4	-4.4	29+	0	6	2.8	60	122	58	76	7	0	C	0	0.5	34	10.7	S	30	14	4	13	5.2	56
FORT WAYNE	241	988.5	1018.8	14.3	2.8	8.6	-3.4	28.3	5	-5.6	28	0	10	2.2	69	63	-9	34	8	1	T	0	0.9	28	13.4	W	21	10	5	16	6.0	54

CLIMATOLOGICAL DATA

METRIC UNITS

OCTOBER 1976

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max 32.2 °C or above	No. of days: Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No of days: 25 mm or more	No of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Fastest mile (1.6 kilometers): Direction	Fastest mile (1.6 kilometers): Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
INDIANA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m s		m s							%
INDIANAPOLIS	241	989.5	1019.1	15.3	3.2	9.3	-3.9	27.8	2	-6.7	28	0	11	3.9	74	71	7	25	7	0	0	0	0.5	32	12.5	W	21	11	6	14	5.6	55
SOUTH BEND	236	989.8	1018.3	13.7	3.9	8.8	-3.1	28.3	2	-3.9	28+	0	6	2.8	71	82	4	51	9	1	20	T	0.7	26	13.0	28	21+	6	9	16	6.5	
IOWA																																
BURLINGTON	211			14.3	2.7	8.5	-4.4	31.7	2	-5.0	28+	0	11	2.8	67	61	-15	44	7	0	0	0	0.7	33	10.7	20	14	12	10	9	4.8	
DES MOINES	286	984.1	1019.4	15.4	2.9	9.2	-3.2	33.3	1	-6.1	22	1	11	0.6	59	28	-26	14	8	0	T	T	0.5	31	15.2	SW	14	12	5	14	5.7	59
DUBUQUE	322	980.0		13.1	1.7	7.4	-3.6	31.1	1	-7.2	22	0	12			62	-10	31	8		38	T										
SIOUX CITY	334	979.3	1020.1	14.4	0.1	7.3	-4.4	30.0	3	-9.4	17	0	19	-0.6	64	11	-31	5	4	0	5	T	0.8	33	15.6	SW	3	13	8	10	5.0	69
WATERLOO	265	987.5	1019.8	13.2	-0.4	6.4	-4.4	32.2	1	-10.0	22	1	21	-1.1	62	44	-16	15	8	0	T	T	0.7	31	12.5	33	13	11	6	14	6.0	
KANSAS																																
CONCORDIA	448	965.8	1019.4	16.5	4.4	10.4	-3.4	32.8	11+	-5.6	20	3	9	2.2	61	48	2	25	7	2	13	T	0.2	30	13.9	SW	14+	12	3	16	5.4	69
DODGE CITY	787	927.2	1018.5	17.6	3.4	10.5	-3.9	33.3	11	-5.6	25	2	10	1.7	62	20	-22	12	7	1	97	76	0.1	7	13.9	N	4	14	5	12	5.0	63
GOODLAND	1114	890.3	1018.9	15.8	-0.4	7.7	-3.8	29.4	1	-7.8	21	0	19	-1.1	61	11	-14	7	4	0	147	102	0.6	23	13.4	15	17+	14	10	7	4.1	
TOPEKA	267	987.8	1019.8	17.6	2.7	10.2	-4.1	35.0	1	-7.2	17	2	8	3.9	69	76	9	19	9	2	T	T	0.4	34	11.6	SW	14	12	6	13	5.3	59
WICHITA	403	971.2	1019.3	18.4	4.2	11.3	-4.0	33.3	1	-6.1	20	3	6	3.3	62	46	-17	23	7	3	T	0	0.6	7	18.8	S	22	13	5	13	5.3	60
KENTUCKY																																
COVINGTON	265	986.8	1018.7	14.9	3.8	9.3	-4.4	26.1	5	-7.2	28	0	7	2.8	66	98	43	31	9	0	0	0	0.4	31	9.4	27	21+	12	6	13	5.6	
LEXINGTON	294	983.1	1018.9	15.1	4.5	9.8	-4.5	25.6	5	-6.7	28	0	6	4.4	73	98	44	23	10	0	0	0	0.4	15	9.8	25	31+	12	5	14	5.8	
LOUISVILLE	145	1000.7	1018.6	17.1	5.7	11.4	-3.1	27.2	5+	-4.4	29+	0	5	5.6	72	101	42	37	7	0	0	0	0.4	34	10.7	W	30	13	4	14	5.7	58
LOUISIANA																																
ALEXANDRIA	28	1014.6	1018.7	22.9	8.3	15.6	-3.2	31.7	3+	-0.6	21	0	1	9.4	70	64	-20	46	5	0	0	0	0.8	35	9.4	3	16	18	4	9	4.4	
BATON ROUGE	20	1015.9	1018.5	23.3	9.9	16.6	-3.7	30.0	5+	2.2	21	0	0	10.6	73	79	11	44	4	1	0	0	1.2	1	9.8	12	29	16	6	9	4.5	
LAKE CHARLES	3	1017.3	1018.5	23.3	9.9	16.6	-4.5	30.0	2	2.8	21	0	0	10.0	69	115	26	74	6	0	0	0	1.4	3	10.7	10	29	15	7	9	4.5	
NEW ORLEANS	1	1016.9	1017.6	23.5	12.0	17.8	-3.2	31.1	3	3.9	22	0	0	12.2	72	129	72	68	5	2	0	0	1.6	2	10.3	17	29	13	7	11	5.2	67
SHREVEPORT	77	1009.5	1018.9	22.6	8.4	15.5	-4.2	31.7	2	-0.6	21	0	1	10.0	77	53	-21	29	9	0	0	0	0.6	35	9.4	21	23	14	5	12	5.0	60
MAINE																																
CARIBOU	190	989.2		8.2	-0.3	4.0	-2.6	21.1	7+	-9.4	28	0	16			139	55	42	12		94	51						3	7	21	7.9	
PORTLAND	13	1012.9	1015.3	11.9	0.9	6.4	-3.1	20.0	7+	-9.4	28	0	14	0.6	68	136	52	53	10	1	0	0	1.4	29	14.3	NW	21+	9	9	13	6.0	65
MARYLAND																																
BALTIMORE	45	1011.9	1017.6	16.4	6.8	11.6	-2.5	24.4	7	-2.8	28	0	6	6.7	74	205	134	42	13	2	0	0	1.2	33	13.4	S	9	9	7	15	6.1	53
MASSACHUSETTS																																
BLUE HILL OBS R	192			13.3	4.4	8.9	-2.9	22.8	7	-5.6	27	0	8			146	54	65	13		0	0			29.1	S	9					52
BOSTON	5	1014.9	1015.9	15.3	7.3	11.3	-1.7	25.0	7	-2.2	27	0	3	5.0	67	106	29	47	10	1	0	0	2.1	28	16.1	SW	9	12	4	15	6.2	54
WORCESTER	301	978.3		12.6	3.3	8.0	-2.9	21.7	9+	-6.1	28	0	9	2.8	72	127	37	55	10	0	T	0	1.9	28	13.4	28	21	7	7	17	6.9	
MICHIGAN																																
ALPENA	210	991.9	1017.4	11.7	0.9	6.3	-2.2	27.8	1	-7.2	27	0	15	0.6	71	54	4	21	10	1	64	25	1.3	29	15.6	NW	13	6	5	20	7.1	47
DETROIT	189			13.8	6.2	10.0	-2.4	26.7	5	-1.7	18	0	3	2.8	64					0			1.6	27	12.5	28	21					
DETROIT METRO	193	993.6	1017.9	14.1	2.9	8.6	-3.2	26.7	5	-6.1	28	0	9	2.2	68	51	-12	26	9	1	T	0	1.5	29	15.2	W	15	8	9	14	6.3	46
FLINT	235	989.5	1017.5	13.2	3.2	8.2	-2.4	26.7	5	-6.1	27	0	9	2.2	69	81	24	52	10	1	T	T	1.4	28	11.2	28	15	5	10	16	7.0	
GRAND RAPIDS	239	988.8	1018.2	13.4	1.8	7.6	-3.5	28.9	2	-7.2	27+	0	11	1.1	68	51	-14	27	10	0	51	T	0.8	27	15.6	W	29	5	9	17	7.1	45
HOUGHTON LAKE	350	974.9	1017.8	10.9	0.5	5.7	-2.9	26.7	2	-6.1	27	0	15	0.6	73	33	-32	16	10	0	18	T	1.2	29	10.7	27	21	6	10	15	6.7	
LANSING	256	986.1	1018.1	12.8	1.4	7.1	-3.8	27.2	5	-8.3	27+	0	12	2.8	77	59	0	35	8	0	36	T	1.0	27	14.8	W	15	6	7	18	6.8	52
MARQUETTE U	206			10.1	2.6	6.3	-2.9	29.4	1	-3.3	27	0	12			57	-5	18	15		445	152			13.9	NW	13					48
MUSKEGON	191	994.9	1018.2	12.5	3.1	7.8	-3.1	26.7	3	-5.6	27	0	8	2.2	70	33	-36	17	9	0	T	T	0.8	29	11.2	22	28+	6	6	19	7.0	
SAULT STE MARIE	220	990.2	1017.1	10.0	0.3	5.2	-2.7	26.1	1	-7.2	26	0	19	1.1	77	36	-36	11	14	0	191	25	0.7	34	13.0	NW	13	5	2	24	7.8	40
MINNESOTA																																
DULUTH	435	966.5	1018.9	8.1	-2.4	2.8	-4.6	21.7	1	-13.3	27	0	23	-3.9	63	12	-46	10	4	0	20	T	1.2	28	12.5	W	14	4	11	16	6.9	37
INTERNATIONAL FALLS	359	974.3	1018.4	7.7	-2.9	2.4	-4.0	24.4	3	-13.9	27	0	23	-2.8	71	21	-22	7	8	0	175	25	1.2	26	11.2	14	14	2	7	22	8.2	
MINNEAPOLIS	254	988.5	1019.5	12.9	1.1	7.0	-3.0	30.0	3	-8.9	27	0	14	-2.2	55	12	-33	6	6	0	58	T	1.0	30	13.9	SW	28	9	6	16	6.3	62
ROCHESTER	395	970.9	1019.6	11.9	-0.8	5.6	-4.2	31.1	1	-9.4	27	0	21	-1.7	66	16	-30	7	6	0	74	25	1.3	28	13.0	21	28+	11	2	18	6.6	
ST CLOUD	313	982.1	1020.2	11.6	-2.7	4.5	-4.2	27.2	1	-15.0	27	0	21			11	-32	8	4		23	T						8	9	14	6.5	
MISSISSIPPI																																
JACKSON	94	1006.4	1018.4	22.3	8.7	15.5	-3.3	32.2	3	-0.6	21	1	1	10.0	77	89	33	55	6	1	0	0	0.7	2	9.8	2	16	14	3	14	5.1	60

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station level	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No of days (sunrise to sunset): Clear 0-3	No of days (sunrise to sunset): Partly cloudy 4-7	No of days (sunrise to sunset): Cloudy 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
MISSISSIPPI	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
MERIDIAN	88	1007.5	1018.5	21.9	6.7	14.3	-3.9	31.7	3	-1.7	21	0	2	8.3	74	65	9	28	9	0	0	0	8.8	31	18.0	15	30	14	4	13	4.9	
MISSOURI																																
COLUMBIA REGIONAL	270	986.5	1019.1	15.8	4.0	9.9	-4.6	33.3	2	-4.4	22	1	7	2.8	67	155	70	64	7	3	T	0	0.5	33	12.1	N	23+	14	5	12	5.2	61
KANSAS CITY	309	982.1	1019.4	16.1	4.8	10.4	-4.3	33.3	2+	-3.9	17	2	7	3.3	66	72	-10	30	9	2	T	0	0.3	1	11.2	N	5	15	4	12	5.0	67
ST JOSEPH	247			17.6	3.4	10.5	-3.7	34.4	1	-4.4	17	3	10			60	-3	32	6		T	0										
ST LOUIS	163	999.0	1019.6	17.1	3.9	10.5	-4.6	31.7	3+	-5.0	28	0	9	4.4	71	86	15	38	8	3	0	0	0.6	33	14.8	m	21	14	7	10	4.6	66
SPRINGFIELD	386	973.6	1019.2	18.2	4.4	11.3	-3.7	33.9	2	-3.9	17	2	5	2.8	60	62	-26	32	8	3	T	0	0.2	18	13.4	N	5	14	5	12	4.8	59
MONTANA																																
BILLINGS	1087	894.0	1019.2	14.3	1.2	7.8	-1.8	27.8	1	-7.2	24+	0	16	-2.2	53	23	1	10	8	0	53	25	7.2	25	14.8	NW	3	7	10	14	6.6	63
GLASGOW	696	935.7	1018.7	12.5	-1.2	5.7	-2.3	27.2	10	-8.9	21	0	21	-3.3	56	5	-9	4	3	0	41	51	0.6	3	16.1	29	14	3	12	16	7.0	
GREAT FALLS	1116	891.0	1019.6	13.9	2.2	8.1	-1.0	27.2	9	-5.6	23	0	12	-3.3	49	5	-12	4	4	0	10	T	3.5	24	15.2	SW	31+	3	13	15	7.3	64
HAVRE	788	925.2		14.9	-2.1	6.4	-1.7	28.9	1	-13.9	24	0	20			6	-11	3	4	0	51	51	1.7	27	15.6	NW	3	4	11	16	6.8	66
HELENA	1167	884.5	1021.4	14.8	-0.5	7.2	-0.2	25.0	1	-7.2	19	0	17	-3.3	51	1	-14	1	2	0	T	T	1.2	28	12.5	NW	34	7	9	15	6.4	63
KALISPELL	904	915.3	1021.6	13.6	-3.2	5.2	-0.6	26.7	1	-10.6	18	0	27	-2.2	63	10	-21	4	5	1	T	0	0.0	25	11.6	4	22+	8	8	15	6.3	
MILES CITY	801	924.5	1018.5	13.5	0.0	6.8	-2.6	30.0	2	-9.4	19	0	19	-1.7	61	19	1		6	0	112		1.3	31								
MISSOULA	972	908.2	1021.8	14.8	-1.7	6.6	-0.1	26.1	1	-8.3	19	0	22	-1.7	61	8	-15	3	5	1	10	T	0.4	30	11.6	N	17+	6	10	15	6.4	65
NEBRASKA																																
GRAND ISLAND	561	952.6	1019.7	15.7	1.3	8.6	-3.5	31.7	1	-8.3	25	0	13	0.0	60	2	-26	1	2	0	T	T	0.6	32	10.7	22	28	12	6	13	5.1	
LINCOLN	359	976.6	1019.8	15.8	1.2	8.5	-4.2	32.8	1	-9.4	17	1	14	1.1	66	8	-31	3	6	2	10	T	0.9	34	14.3	S	3	11	7	13	5.4	64
NORFOLK	471	963.1	1019.4	14.7	0.8	7.8	-3.6	29.4	2	-7.8	25+	0	17	-1.7	56	10	-24	6	2	1	41	25	1.0	31	16.5	35	15	14	6	11	4.8	
NORTH PLATTE	846	920.8	1019.8	16.1	-1.4	7.3	-3.2	31.7	1	-10.6	25	0	21	-1.1	61	30	5	29	3	0	25	25	0.3	2	13.9	NW	3	13	7	11	5.0	71
OMAHA	298	983.7	1019.7	16.5	1.8	9.2	-4.1	34.4	1	-7.8	17	2	11	2.2	68	34	-15	16	7	3	36	25	0.8	35	13.4	NW	15	10	8	13	5.6	66
SCOTTSBLUFF	1206	881.8	1018.9	17.8	-0.8	8.5	-1.6	30.6	10+	-7.8	19	0	19	-3.3	51	9	-12	6	4	1	T	T	1.2	33	15.6	30	3	15	6	10	4.3	
VALENTINE	789	926.5		15.0	-0.5	7.3	-2.7	29.4	2	-8.9	16	0	18			10	-14	7	4	0	20	T	0.7	28	20.6	S	17	13	8	10	4.7	79
NEVADA																																
ELKO	1539	848.3	1020.7	18.1	-1.9	8.1	-0.2	25.0	9	-8.9	27	0	21	-3.9	51	15	-2	10	2	0	0	0	0.3	32	7.6	30	25	18	5	8	3.6	
ELY	1906	812.1	1019.8	17.4	-3.9	6.7	-1.1	25.6	9	-10.6	19	0	27	-6.7	46	38	22	35	3	0	T	0	1.1	21	11.6	NW	26	16	10	5	3.6	84
LAS VEGAS	659	939.4	1015.5	26.1	12.2	19.2	-0.3	30.6	12+	5.6	29	0	0	0.6	34	18	12	18	1	2	0	0	6.9	28	13.9	NW	26	22	4	5	2.4	96
RENO	1342	869.3	1019.2	21.8	-0.3	10.7	0.6	29.4	9	-7.8	28	0	19	-1.1	51	7	-4	7	1	1	0	0	0.2	36	13.0	NW	1	17	8	6	3.6	89
WINNEMUCCA	1311	872.0	1020.0	21.6	-1.7	9.9	0.9	28.9	9	-9.4	28+	0	20	-2.8	47	11	-6	11	1	0	T	0	0.1	13	11.2	NW	25	19	4	8	3.4	80
NEW HAMPSHIRE																																
CONCORD	104	1003.1	1015.8	13.8	0.7	7.2	-2.4	25.0	7	-10.6	28	0	16	2.2	73	103	35	52	10	0	T	0	1.2	27	13.4	W	23	5	11	15	6.8	55
MT WASHINGTON OBS	1909			0.6	-6.7	-3.1	-2.8	10.6	5+	-18.9	27	0	23			263	108	76	19	2	582	127			55.9	SE	20	3	3	25	8.5	24
NEW JERSEY																																
ATLANTIC CITY	20	1014.6	1017.0	16.1	5.3	10.7	-3.1	24.4	8+	-3.9	28+	0	6	5.6	72	168	80	56	13	1	0	0	1.5	29	15.6	16	9	10	6	15	6.2	48
ATLANTIC CITY A	3			15.1	8.3	11.7	-3.2	21.1	9+	-1.7	28	0	2			125	48	43	13						17.9	S	9					
NEWARK	2	1015.9	1016.8	15.8	7.1	11.4	-2.7	24.4	9	-1.7	28+	0	3	5.0	66	129	57	54	13	1	0	0	1.4	30	13.0	30	14	8	7	16	6.7	
TRENTON A	17			15.5	7.1	11.3	-2.7	24.4	9+	-2.2	28	0	3			138	74	55	12		0	0			17.9	S	9	11	7	13	5.8	49
NEW MEXICO																																
ALBUQUERQUE	1619	839.8	1016.4	19.6	3.8	11.7	-2.8	27.2	12	-3.3	30	0	7	-2.2	42	1	-19	1	1	0	T	0	0.9	11	19.2	E	27+	15	9	7	4.0	69
CLAYTON	1515			16.7	2.0	9.3	-3.3	28.3	11	-4.4	28+	0	15			6	-23	5	2		T	0										
ROSWELL	1112	892.3	1016.6	21.3	5.6	13.4	-1.9	30.0	11+	-1.1	28	0	4	1.1	49	18	-13	13	3	0	107	51	0.1	2	14.3	NE	6	15	8	8	4.2	81
NEW YORK																																
ALBANY	84	1006.1	1016.7	13.6	2.5	8.1	-2.7	23.3	5	-6.7	28	0	11	3.9	79	144	77	69	12	3	T	0	1.6	29	17.9	W	9	5	7	19	7.4	32
BINGHAMTON	488	958.0	1017.5	11.0	1.9	6.5	-3.7	20.6	4	-8.3	28	0	12	2.2	77	160	84	68	11	2	T	T	1.9	27	16.1	NW	13	5	8	18	7.0	43
BUFFALO	215	990.9	1016.8	12.0	3.8	7.9	-2.9	25.0	4	-5.0	27	0	5	2.8	72	92	15	27	13	1	5	T	1.5	27	16.1	SW	28	4	9	18	7.0	41
NEW YORK U	40	1013.9	1017.2	15.3	7.9	11.6	-3.2	22.8	8	-1.7	28+	0	2	5.0	66	135	62	46	12	0	0	0	1.2	35	8.9	NW	21					49
NEW YORK KENNEDY	4	1016.3	1016.9	15.0	8.1	11.6	-2.5	22.2	4	-1.1	28	0	3	5.6	70	103	33	43	10	1	0	0	1.8	31	17.4	18	9	9	8	14	6.2	
NEW YORK LA GUARDIA	3	1015.9	1017.1	15.8	9.2	12.5	-2.0	22.8	8	0.6	28+	0	0	4.4	61	117	42	39	10	0	0	0	1.7	30	21.0	SE	9	10	6	15	6.4	
ROCHESTER	167	997.0	1017.4	13.2	4.0	8.6	-2.7	24.4	6+	-2.8	18	0	3	4.4	79	120	54	49	12	1	13	T	1.9	26	14.3	SW	15	3	13	15	7.2	39
SYRACUSE	125	1001.7	1016.6	13.1	3.4	8.3	-3.1	22.8	5+	-7.2	27	0	9	3.3	76	166	87	43	14	1	8	T	1.9	26	14.3	W	14	5	5	21	7.6	31
NORTH CAROLINA																																
ASHEVILLE	652	941.8	1018.4	16.9	4.7	10.8	-2.9	23.9	13	-6.1	29	0	6	6.1	77	142	59	51	10	1	0	0	1.4	35	10.7	33	26	11	7	13	5.5	51

CLIMATOLOGICAL DATA

METRIC UNITS

OCTOBER 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
NORTH CAROLINA	m	mb	mb	°C	C	C	C	°C		C				C	%	mm	mm	mm			mm	mm	m/s		m s							
CAPE HATTERAS R	2	1016.9	1017.3	21.1	12.4	16.8	-1.7	28.3	8	1.7	30	0	0	12.2	74	117	-4	50	7	1	0	0	1.3	35	12.5	20	9	11	10	10	5.2	45
CHARLOTTE	224	990.5	1018.2	18.7	7.4	13.1	-3.4	26.1	7	-2.8	29	0	3	7.8	74	212	143	136	11	1	0	0	0.6	2	10.3	S	25+	13	7	11	5.2	59
GREENSBORO	273	986.5	1018.3	17.6	5.9	11.8	-3.3	25.0	7	-3.3	29	0	6	7.2	79	219	144	108	9	1	0	0	0.6	33	12.1	W	9	11	7	13	5.5	52
RALEIGH	132	1002.0	1017.9	19.6	6.7	13.2	-2.5	28.3	8	-3.9	29	0	4	6.7	68	101	29	42	10	0	0	0	0.6	35	9.4	24	9	12	7	12	5.4	55
WILMINGTON	9	1016.6	1017.8	22.4	9.2	15.8	-2.7	28.9	8	-1.1	29	0	1	11.1	78	84	0	33	7	1	0	0	1.1	36	14.3	W	9	15	6	10	4.8	68
NORTH DAKOTA																																
BISMARCK	502	958.7	1019.5	12.4	-2.0	5.2	-3.0	27.8	2	-11.1	16	0	22	-2.2	61	5	-15	3	5	0	48	25	0.8	29	20.1	NW	14	8	9	14	6.2	57
FARGO	273	985.4	1019.0	11.0	-2.7	4.2	-4.2	29.4	3	-13.9	26	0	21	-4.4	56	4	-24	4	3	0	T	T	0.9	29	17.0	NW	14	3	15	13	6.4	55
WILLISTON	579	949.2	1019.0	12.2	-2.3	4.9	-2.7	27.8	2	-11.7	16	0	22	-2.8	62	7	-9	4	5	0	48	51	1.2	30	17.9	NW	14	5	6	20	7.5	45
OHIO																																
AKRON	368	973.2	1018.4	13.2	3.0	8.1	-3.7	23.9	5+	-5.0	28	0	9	2.8	71	59	-2	16	9	0	10	T	1.3	26	13.0	30	13	8	9	14	6.3	
CINCINNATI ABBE 08	232			15.8	4.9	10.4	-3.9	26.7	3+	-4.4	28	0	6			97	41	33	7						8.5	SW	21					43
CLEVELAND	237	989.2	1018.7	13.7	4.2	8.9	-3.2	26.1	5	-4.4	28	0	6	3.3	70	65	-1	15	13	0	41	25	1.4	27	11.2	W	21	5	10	16	7.0	45
COLUMBUS	247	988.5	1018.9	13.9	3.3	8.6	-3.7	26.1	5	-6.1	28	0	9	2.8	70	73	25	22	7	0	T	0	0.6	29	12.5	SW	21	12	5	14	5.8	44
DAYTON	303	982.1	1018.8	14.6	2.7	8.7	-4.4	26.1	5	-5.0	28	0	9	2.8	69	72	22	21	8	0	T	0	0.8	27	15.2	W	21	13	4	14	5.6	56
MANSFIELD	395			12.3	2.4	7.4	-5.2	24.4	5	-6.7	28	0	10	3.3	78	62	12	16	9	0	T	0	1.7	26	13.0	31	13	7	11	13	6.4	
TOLEDO	204	992.9	1018.5	13.5	1.6	7.6	-4.1	28.3	5	-9.4	28	0	11	2.2	72	54	-3	28	8	0	T	0	1.2	28	15.2	W	15	6	10	15	6.5	45
YOUNGSTOWN	359	974.9	1018.1	12.3	3.1	7.7	-3.7	23.3	5	-4.4	27	0	9	2.2	71	62	-13	16	10	0	T	T	1.1	27	10.3	23	15	6	8	17	7.0	
OKLAHOMA																																
OKLAHOMA CITY	392	972.6	1019.1	20.5	6.7	13.6	-3.3	35.0	1	-3.3	20	2	2	5.0	61	45	-20	31	10	1	0	0	0.4	11	13.4	SW	22	12	8	11	4.9	58
TULSA	198	994.6	1019.0	20.0	6.8	13.4	-3.8	33.9	2	-1.7	28	2	3	5.6	65	67	-14	38	5	1	0	0	0.5	14	12.5	N	15	14	5	12	4.9	56
OREGON																																
ASTORIA	2	1019.3	1020.0	16.6	6.9	11.8	0.2	25.6	7	1.1	30	0	0	8.3	81	75	-98	31	9	0	0	0	0.7	13	13.0	19	31	7	8	16	6.6	
BURNS U	1265			18.3	-0.3	9.0	0.5	27.2	9	-6.1	27+	0	19			3	-20	2	3		0	0			21.5Y		2	21	3	7	3.3	
EUGENE	109	1006.1	1019.8	19.9	4.4	12.2	0.4	30.6	7	-1.1	20+	0	4	6.7	77	47	-54	27	7	0	0	0	0.2	3	11.2	18	31	5	10	16	6.7	
MEDFORD	396	971.9	1019.8	21.8	2.7	12.3	0.4	32.2	7	-3.9	27	1	10	4.4	69	5	-47	2	4	1	0	0	0.2	24	6.3	3	2	14	9	8	4.2	
PENDLETON	452	966.5	1020.4	18.8	4.7	11.7	0.3	28.3	1	-1.1	20+	0	4	1.7	56	14	-14	7	4	0	0	0	0.7	26	11.6	28	2	13	9	9	4.8	
PORTLAND	6	1018.6	1019.9	18.2	6.9	12.6	0.5	27.8	7	0.6	21	0	0	7.2	76	38	-54	13	6	0	0	0	0.3	13	14.3	SW	31	7	9	15	6.3	55
SALEM	60	1012.2	1019.5	18.8	3.6	11.2	-0.6	30.6	7	-1.7	21+	0	5	6.1	80	38	-63	18	7	0	0	0	0.4	22	10.3	20	31	9	9	13	5.8	
SEXTON SUMMIT R	1169	886.9	1018.1	17.5	8.6	13.1	2.8	26.1	7	1.1	23	0	0			15	-77	7	5		0	0			17.0	22	24					
PACIFIC AREA																																
GUAM TAGUAC R	110			30.3	22.4	26.4	0.3	31.1	16+	18.3	28	0	0			168	-197	54	29		0	0			13.0	E	31	0	21	10	7.0	56
JOHNSTON	2	1012.2	1012.8	28.8	24.6	26.7	-0.3	29.4	21+	22.2	23+	0	0	22.8	79	61	-27	22	16	0	0	0	7.2	8	15.2	E	27	7	12	12	6.1	71
KOROR R	29	1006.1		31.4	24.6	28.0	0.3	32.8	30+	23.3	15	6	0			317	-3	84	25	4	0	0	1.9	7	10.7	SE	22	0	6	25	8.6	47
KWAJALEIN	2	1009.1		29.9	25.1	27.5	-0.5	31.1	4	22.8	19	0	0			265	-39	46	21	0	0	0	4.8	8	14.3	7	12	0	4	27	8.9	
MAJURO	3	1009.1		30.1	24.7	27.4	0.1	31.1	27+	22.8	24	0	0			227	-179	86	28		0	0	3.4	8	13.4	E	18	1	7	23	8.6	48
PAGO PAGO	4	1011.9	1012.1	29.8	24.4	27.1	0.8	31.7	31+	21.1	2	0	0	23.3	80	89	-218	28	19	2	0	0	4.7	9	11.6	E	7+	1	22	8	6.6	54
PONAPE R	37			31.2	23.2	27.2	0.4	33.3	6	22.2	30+	14	0			430	13	114	29	6	0	0			7.6	NE	23+	0	11	20	8.1	42
TRUK MOEN ISLAND	2	1009.1		30.6	24.6	27.6	0.3	32.2	26+	22.2	1	2	0			387	46	98	24	1	0	0	2.1	8	18.3	NE	27	0	3	28	9.5	48
WAKE	3	1013.5	1013.9	31.3	24.8	28.1	0.5	32.2	17+	23.3	18+	2	0	23.3	79	36	-103	11	18	1	0	0	6.3	9	12.1	E	13	19	11	1	3.5	81
YAP R	13	1007.8		31.1	23.6	27.3	-0.1	31.7	30+	22.2	31+	0	0			66	-250	11	21	0	0	0	2.9	8	8.0	E	14	0	17	14	7.3	71
PENNSYLVANIA																																
ALLENTOWN	118	1003.4	1017.6	15.1	5.1	10.1	-2.2	25.6	9	-4.4	28	0	6	4.4	71	145	75	42	13	2	0	0	1.4	29	14.3	22	9	8	5	18	6.6	
ERIE	223	990.9	1017.9	12.8	5.1	8.9	-1.9	25.0	5	-1.1	27	0	2	3.9	72	105	23	25	14	2	79	51	1.1	25	13.0	30	13	5	7	19	7.3	
HARRISBURG	103	1005.8	1018.7	15.2	6.4	10.8	-2.4	23.9	13	-4.4	28	0	5	5.6	73	251	185	113	13	2	0	0	1.3	30	13.4	NW	14	10	5	16	6.1	49
PHILADELPHIA	2	1016.6	1017.5	16.0	6.8	11.4	-2.7	25.0	7	-2.2	28	0	4	3.9	62	109	45	36	13	0	0	0	1.4	31	16.1	SW	9	12	5	14	5.7	53
PITTSBURGH	347	973.9	1018.6	12.3	3.1	7.7	-4.1	22.2	15+	-5.6	28	0	11	1.7	70	96	31	25	13	0	T	0	1.6	29	12.1	28	21+	7	9	15	6.8	41
SCRANTON	283	982.7	1017.2	13.1	4.7	8.9	-2.6	22.2	7	-5.6	28	0	7	3.3	69	206	137	83	13	1	0	0	1.0	26	14.8	SW	9	8	4	19	6.8	40
WILLIAMSPORT	160	998.3	1017.6	14.4	4.9	9.7	-2.2	23.9	15+	-5.6	28	0	5	4.4	73	207	125	84	14	1	T	0	1.4	30	9.8	28	22	6	7	18	7.0	
RHODE ISLAND																																
PROVIDENCE	16	1013.9	1016.3	14.3	4.2	9.3	-2.8	23.9	7	-6.7	27	0	10	4.4	73	166	83	81	14	1	0	0	1.7	30	13.4	25	15	11	5	15	6.3	49
SOUTH CAROLINA																																
CHARLESTON	12	1016.3	1018.2	22.6	10.0	16.3	-2.6	30.0	8	-2.8	29	0	2	10.6	73	104	27	51	6	3	0	0	1.0	35	13.4	18	9	12	9	10	4.7	72
CHARLESTON U	3			22.2												126	50	61	8		0	0										

CLIMATOLOGICAL DATA

METRIC UNITS

OCTOBER 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm. or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No of days (sunrise to sunset): Clear, 0-3	No of days (sunrise to sunset): Partly cloudy, 4-7	No of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
SOUTH CAROLINA	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m s		m s							
COLUMBIA	65	1009.8	1017.9	21.8	7.8	14.8	-3.1	27.8	16+	-3.3	29	0	3	9.4	75	132	67	57	9	2	0	0	0.6	36	9.4	28	9	12	10	9	4.9	61
GREENVILLE-SPARTNBRG	292	983.1	1017.9	18.9	7.3	13.1	-3.4	25.6	16	-3.9	29	0	3	7.8	75	216	135	98	9	1	0	0	0.6	1	8.5	N	31	13	8	10	4.6	62
SOUTH DAKOTA																																
ABERDEEN	395	971.6	1019.3	13.4	-1.2	6.1	-2.7	28.3	11	-11.7	27	0	21	-2.8	56	8	-23	7	2	1	61	51	0.6	32	13.0	31	15+	9	11	11	5.8	
HURON	390	971.9	1019.3	13.0	-1.8	5.6	-4.2	28.3	2	-12.8	27	0	23	-1.7	65	32	-7	14	5	1	185	76	0.3	29	17.0	NW	15	8	12	11	5.6	74
RAPID CITY	964	907.6	1019.6	15.0	-0.2	7.4	-2.6	29.4	2	-9.4	19	0	19	-3.3	52	5	-17	4	3	0	13	T	1.7	34	18.3	NW	14	12	8	11	5.5	70
SIOUX FALLS	432	967.5	1019.7	14.3	-0.7	6.8	-3.3	30.0	3	-10.6	17	0	20	-2.8	55	18	-20	10	4	2	86	25	0.6	31	13.4	31	15	12	9	10	5.1	
TENNESSEE																																
BRISTOL	459	964.1	1018.7	16.4	5.3	10.9	-3.5	24.4	5+	-4.4	29	0	6	6.1	75	135	77	42	11	0	0	0	0.6	30	8.0	24	9	11	3	17	6.0	
CHATTANOOGA	203	993.6	1018.4	19.3	7.7	13.5	-2.5	27.8	4	-3.3	29	0	3	7.8	73	90	15	40	7	0	0	0	0.6	36	9.4	19	30	14	4	13	5.6	50
KNOXVILLE	299	983.4	1018.5	18.2	6.8	12.5	-3.6	26.7	4	-2.8	29	0	2	7.8	78	135	68	40	10	0	0	0	0.9	35	9.4	23	9	13	4	14	5.7	47
MEMPHIS	79	1008.5	1018.8	20.7	9.2	14.9	-2.3	30.6	4	2.2	28	0	0	7.2	63	144	78	55	10	0	0	0	0.4	2	10.3	18	5	15	2	14	5.0	67
NASHVILLE	180	997.0	1018.9	17.9	6.4	12.2	-3.9	27.8	5	-2.8	29	0	3	6.1	72	131	76	34	9	0	0	0	0.4	31	8.9	27	30+	15	2	14	5.2	55
OAK RIDGE A	276			17.3	5.2	11.3	-3.8	25.6	4	-4.4	29	0	7			150	81	68	9		0	0			11.2Y		30	11	7	13	5.8	
TEXAS																																
ABILENE	544	955.0	1018.1	20.0	7.6	13.8	-5.1	31.7	3	-1.7	20	0	1	8.3	72	158	92	53	9	2	0	0	1.1	16	14.8	N	19+	15	3	13	5.0	61
AMARILLO	1099	893.3	1017.8	17.1	2.8	9.9	-5.3	28.9	11	-3.9	19	0	13	1.7	64	29	-18	12	8	2	99	T	0.8	24	13.4	3	15	14	5	12	4.8	65
AUSTIN	182	996.3	1018.5	21.8	10.8	16.3	-4.9	30.6	1	2.8	30	0	0	11.1	75	151	74	53	8	2	0	0	0.8	3	13.0	NW	5	12	7	12	5.4	55
BROWNSVILLE	6	1016.3	1016.9	26.6	15.8	21.2	-3.1	32.2	4	8.9	10	1	0	15.6	73	215	130	167	9	0	0	0	2.5	6	14.3	N	7	8	8	15	6.2	54
CORPUS CHRISTI	12	1015.9	1017.7	25.2	14.0	19.6	-3.7	32.2	4	7.2	30+	1	0	15.0	77	173	103	73	10	3	0	0	2.1	5	13.4	2	28	7	10	14	6.2	54
DALLAS - FORT WORTH	168	997.3	1018.6	21.7	9.7	15.7	-4.1	32.8	2+	3.3	21+	4	0	9.4	70	88	20	39	11	1	0	0	0.1	24	11.2	35	24+	11	6	14	5.6	
DEL RIO	313	981.0	1017.2	23.6	10.8	17.2	-4.6	32.2	3	1.1	20	1	0	10.6	69	81	29	29	10	2	0	0	1.7	10	9.8	34	7	14	6	11	5.0	
EL PASO	1194	883.5	1015.4	22.2	7.3	14.7	-3.1	28.3	12+	0.6	30	0	0	2.8	50	30	11	12	8	1	T	T	0.4	34	10.7	24	14	14	11	6	3.5	80
GALVESTON	7			21.6	15.3	18.5	-4.3	28.3	4	8.3	30+	0	0			98	26	54	8		0	0			13.0	SE	29					56
HOUSTON INTERCON	29	1014.9	1018.6	22.3	9.4	15.9	-5.7	30.0	4	0.6	21	0	0	11.1	79	148	45	51	9	1	0	0	1.0	4	10.3	7	29	13	3	15	5.4	56
LUBBOCK	992	905.9	1017.5	19.7	4.8	12.3	-3.8	28.9	11	-1.1	20	0	6	3.3	62	35	-17	14	9	4	191	76	0.3	16	10.7	1	26+	17	2	12	4.3	70
MIDLAND	869	918.1	1016.5	22.2	7.1	14.7	-4.1	30.0	3	0.6	8	0	0	5.0	60	47	12	21	7	3	0	0	0.9	13	13.4	3	7	16	6	9	4.3	
PORT ARTHUR	5	1018.0		23.0	10.2	16.6	-4.4	29.4	4+	2.2	21	0	0	11.7	77	131	37	59	7	0	0	0	1.4	3	17.9	E	29	13	6	12	5.1	57
SAN ANGELO	580	950.9	1017.6	21.2	8.4	14.8	-4.8	31.7	3	0.6	20	0	0	8.3	68	130	83	45	7	5	0	0	0.7	15	11.2	17	23	11	6	14	5.4	
SAN ANTONIO	240	989.8	1017.9	22.3	9.9	16.2	-5.2	30.0	4	1.7	20	0	0	11.1	74	215	143	54	10	2	0	0	1.3	4	12.5	29	4	12	8	11	5.3	59
VICTORIA	32	1013.9	1018.1	23.4	12.1	17.8	-4.6	30.6	3	3.3	20	0	0	12.2	76	157	65	45	11	3	0	0	1.8	3	17.4Y	NW	19+	8	8	15	6.0	
WACO	153	1000.3	1018.6	22.0	9.7	15.8	-4.8	32.8	1	0.6	20	1	0	10.6	74	132	67	66	9	1	0	0	0.5	14	10.3	16	23	9	9	13	6.0	
WICHITA FALLS	303	981.7	1018.6	20.5	7.9	14.2	-4.7	32.8	1	-0.6	20	1	1	8.3	74	153	85	38	13	8	0	0	0.7	19	15.6	19	4	16	2	13	4.8	
UTAH																																
MILFORD	1533	849.3		18.5	-1.4	8.6	-1.8	27.8	1	-9.4	20+	0	21			29	9	22	3		T	0			13.9	SW	10+	21	6	4	2.9	84
SALT LAKE CITY	1286	875.0	1019.7	18.3	2.8	10.6	-0.8	29.4	1	-3.3	19	0	10	-0.6	52	14	-15	14	3	1	0	0	0.3	16	13.0	N	1	16	9	5	3.8	85
WENDOVER	1291	874.4	1020.1	16.4	4.6	10.6	-1.0	21.7	15+	-2.8	21	0	6	-2.8	43	5	-6	4	2		0	0										
VERMONT																																
BURLINGTON	101	1003.4	1016.1	10.7	2.3	6.5	-2.8	21.7	7	-4.4	24	0	10	2.2	75	110	41	31	11	0	23	T	1.3	25	12.1	S	13	4	1	26	8.3	41
VIRGINIA																																
LYNCHBURG	279	984.1		17.3	6.3	11.8	-2.7	26.1	13+	-4.4	28	0	6			290	224	94	13		0	0	0.8	32	10.3	SW	9	11	6	14	5.8	57
NORFOLK	7	1016.6	1017.6	19.2	9.3	14.3	-2.2	28.3	8	-2.8	29	0	2	7.8	67	74	-4	24	11	0	0	0	1.0	34	12.5	1	17	7	9	15	6.4	54
RICHMOND	50	1011.2	1017.8	18.8	6.1	12.4	-2.7	27.2	7	-5.6	29	0	8	7.8	77	178	103	45	12	1	0	0	0.7	33	11.6	W	9	9	6	16	6.3	55
ROANOKE	358	976.0	1018.3	15.7	4.6	10.2	-4.2	25.0	13	-5.6	28	0	8	4.4	72	247	166	76	12	1	0	0	1.2	32	12.5	29	21	10	4	17	6.1	
WALLOPS ISLAND	3			17.4	8.7	13.1	-2.6	23.3	9	-0.6	29+	0	2			122	50	51	12		0	0			26.4Y	S	9					
WASHINGTON																																
OLYMPIA	59	1012.2	1019.5	16.6	3.0	9.8	-0.6	22.8	7	-6.1	19	0	11	6.1	82	67	-67	33	11	0	0	0	0.7	19	11.6	25	2	5	11	15	6.8	
QUILLAYUTE	55	1011.9	1019.3	16.1	5.0	10.6	0.2	23.9	7	-1.7	19	0	6	7.8	86	154	-140	40	16	0	0	0	0.4	16	9.8	W	2	7	9	15	6.7	45
SEATTLE Ø	6			15.9	8.6	12.2	-0.1	20.6	8+	3.9	19	0	0			49	-38	19	9		0	0			14.3Y	S	31					
SEATTLE-TACOMA	122	1003.4	1020.0	16.8	8.6	12.7	1.5	23.3	7	3.3	20	0	0	8.3	79	52	-47	20	7	0	0	0	0.4	10	11.2	SW	2	6	7	18	7.1	39
SPOKANE	718	935.0	1019.8	15.5	0.9	8.2	-0.6	27.8	1	-5.0	23	0	16	1.1	66	15	-21	8	5	0	0	0	0.6	18	12.5	SW	2	8	7	16	6.4	62
STAMPEDE PASS R	1206	882.2		10.2	3.1	6.6	1.2	19.4	12+	-1.7	30	0	4			154	-72	59	12		8	T						10	4	17	6.2	
WALLA WALLA C	289			18.5	5.8	12.2	-0.3	28.3	1	-0.6	19	0	1			41	3	23	5		0	0			10.3	SW	2	11	9	11	5.3	66
YAKIMA	321	981.4	1020.4	18.6	0.9	9.8	-0.3	27.8	1	-5.0	20+	0	14	0.6	59	2	-13	1	3	0	0	0	1.8	29	10.7	31	25+	12	9	10	5.1	

CLIMATOLOGICAL DATA

METRIC UNITS

OCTOBER 1976

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days Max 32.2 °C or above	Temperature: No of days Min 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days 25 mm or more	Precipitation: No of days With thunderstorms	Precipitation: Snow, Ice pellets Total	Precipitation: Snow, Ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No of days (sunrise to sunset) Clear, 0-3	No of days (sunrise to sunset) Partly cloudy, 4-7	No of days (sunrise to sunset) Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
WEST INDIES	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							
SAN JUAN P.R.	4	1009.8	1012.1	31.0	25.1	28.1	1.1	32.2	12	22.8	31	1	0	21.7	70	195	52	57	22	8	0	0	2.2	8	11.6	NE	7	2	20	9	6.3	54
WEST VIRGINIA																																
BECKLEY	763	929.6	1019.2	12.8	3.2	8.0	-3.6	21.7	13	-7.8	28	0	9	3.3	77	149	86	45	16	0	T	0	0.8	24	11.6	29	20	10	4	17	6.5	
CHARLESTON	286	984.4	1019.0	14.9	4.8	9.7	-4.2	25.6	15+	-6.1	29	0	8	3.9	72	138	76	39	13	0	T	T	0.6	27	9.4	27	21	7	6	18	6.7	
ELKINS	594	947.2		14.3	2.0	8.2	-2.7	24.4	6	-8.9	28	0	11			160	91	55	14		T	0						7	5	19	6.9	
HUNTINGTON	252	988.2	1018.7	15.1	4.9	10.1	-3.9	26.7	5	-4.4	29	0	7	3.9	70	141	88	45	11	0	T	0	0.4	32	9.8	26	15	4	11	16	7.1	
PARKERSBURG L	187			14.6	4.8	9.7	-4.2	28.3	5	-3.9	28	0	7			129	74	56	11		T	T			12.1	W	21					43
WISCONSIN																																
GREEN BAY	208	992.6	1018.7	12.2	0.3	6.3	-3.3	29.4	1	-8.3	27	0	18	-0.6	65	21	-28	13	5	0	36	25	1.7	29	17.0	NW	13	11	4	16	6.0	55
LA CROSSE	198	995.6	1020.4	12.9	1.5	7.2	-3.8	33.3	1	-8.3	27	1	16	0.0	63	7	-45		3	0	5		0.9	29								
MADISON	262	987.1	1019.0	13.6	-0.7	6.5	-3.4	32.2	1	-9.4	27	1	20	0.0	67	38	-17	16	6	0	T	T	1.3	30	14.8	SW	14	8	8	15	6.2	55
MILWAUKEE	205	993.2	1018.6	12.2	3.2	7.7	-2.8	28.3	1	-6.1	27	0	9	2.8	73	72	21	34	10	0	102	76	2.0	29	16.1	SW	14	10	7	14	6.0	44
WYOMING																																
CASPER	1627	839.5	1019.0	13.8	-0.8	6.6	-2.2	27.8	1	-8.3	24	0	18	-2.8	59	31	7	13	9	0	97	51	1.7	24	11.6	25	31	11	11	9	5.1	
CHEYENNE	1867	813.4	1018.1	14.4	-1.7	6.3	-2.5	25.0	10	-10.6	19	0	21	-7.2	44	4	-20	3	3	0	38	25	2.2	30	17.4	NW	18	14	8	9	4.3	68
LANDER	1696	831.4	1019.4	13.8	-0.9	6.4	-1.8	25.0	10+	-7.8	19	0	20	-3.9	55	42	11	27	6	0	338	203	0.6	22	13.4	SW	2	10	13	8	5.2	73
SHERIDAN	1208	881.1	1020.1	14.3	-2.9	5.7	-3.1	28.9	1	-12.2	19	0	21	-1.7	64	27	1	11	8	0	89	76	1.7	31	13.4	NW	14*	7	9	15	6.6	58

HEATING DEGREE DAYS

(Base 65°F.)

OCTOBER 1970

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	241	248	143
HUNTSVILLE	306	325	170
MOBILE	149	149	39
MONTGOMERY	180	180	93
ALASKA			
ANCHORAGE	972	1939	1949
ANNETTE	546	1243	1333
BARROW	1587	4223	4246
BARTER ISLAND	1635	4169	4093
BETHEL	1075	2310	2392
BETTLES	1438	2456	2782
BIG DELTA	1229	2056	2379
COLD BAY	797	2279	2208
FAIRBANKS	1249	2156	2304
GULKANA	1093	2038	2448
HOMER	875	2134	2181
JUNEAU	679	1641	1813
KING SALMON	1032	2335	2177
KODIAK	787	1842	1854
KOTZEBUE	1297	2549	2818
MC GRATH	1301	2380	2443
NOME	1100	2610	2771
ST. PAUL ISLAND	838	2629	2402
SUMMIT			
TALKEETNA	1091	2107	2129
UNALAKLEET	1134	2341	2561
VALDEZ	873	2062	2174
YAKUTAT	755	1942	1986
ARIZONA			
FLAGSTAFF	583	871	934
PHOENIX	2	2	17
TUCSON	45	45	29
WINSLOW	378	417	271
YUMA	1	1	0
ARKANSAS			
FORT SMITH	317	337	135
LITTLE ROCK	257	258	148
CALIFORNIA			
BAKERSFIELD	13	13	55
BISHOP	257	257	309
BLUE CANYON	289	645	534
EUREKA U	324	1021	1099
FRESNO	43	69	90
LONG BEACH	0	0	58
LOS ANGELES	5	5	134
LOS ANGELES U	0	0	40
MT SHASTA R	378	649	668
OAKLAND	79	196	348
RED BLUFF	34	34	82
SACRAMENTO	44	45	106
SANDBERG R	183	395	262
SAN DIEGO	0	0	65
SAN FRANCISCO	127	316	380
SAN FRANCISCO U	102	475	408
SANTA MARIA	97	194	467
STOCKTON	29	29	88
COLORADO			
ALAMOSA	779	1249	1093
COLORADO SPRINGS	593	795	633
DENVER	509	658	528
GRAND JUNCTION	421	462	384
PUEBLO	507	515	390
CONNECTICUT			
BRIDGEPORT	356	422	303
HARTFORD	447	601	502
DELAWARE			
WILMINGTON	387	435	286
DISTRICT OF COLUMBIA			
WASHINGTON DULLES	447	520	334
WASHINGTON NATIONAL	306	317	204
FLORIDA			
APALACHICOLA	86	86	22
DAYTONA BEACH	11	11	0
FORT MYERS	2	2	0
JACKSONVILLE	87	87	19
KEY WEST	0	0	0
LAKELAND U	11	10	0
MIAMI	0	0	0
ORLANDO	4	4	0
PENSACOLA	131	122	32
TALLAHASSEE	100	100	31
TAMPA	11	11	0
WEST PALM BEACH	0	0	0
GEORGIA			
ATHENS	234	240	138
ATLANTA	277	287	145
AUGUSTA	191	191	104
COLUMBUS	187	187	81
MACON	163	163	82
ROME	262	270	185
SAVANNAH	142	142	60
IDAHO			
BOISE	434	549	545
LEWISTON	331	365	550
POCATELLO	584	739	727
ILLINOIS			
CAIRO	309	314	168
CHICAGO O HARE	522	650	475
CHICAGO MIDWAY	520	615	481
MOLINE	569	697	434
PEORIA	556	671	485
ROCKFORD	615	808	513
SPRINGFIELD	497	584	438
INDIANA			
EVANSVILLE	391	418	270
FORT WAYNE	540	672	465
INDIANAPOLIS	503	584	370
SOUTH BEND	525	683	496
IOWA			
BURLINGTON	553	658	398
DES MOINES	527	604	457
DUBUQUE	614	808	594
SIOUX CITY	620	729	501
WATERLOO	664	870	596
KANSAS			
CONCORDIA	461	518	348
DODGE CITY	464	512	288
GOODLAND	587	711	495
TOPEKA	471	516	314
WICHITA	409	447	243
KENTUCKY			
COVINGTON	498	574	315
LEXINGTON	474	543	286
LOUISVILLE	393	422	276
LOUISIANA			
ALEXANDRIA	188	188	92
BATON ROUGE	140	140	54
LAKE CHARLES	137	137	36
NEW ORLEANS	93	93	40
SHREVEPORT	199	199	70
MAINE			
CARIBOU	793	1414	1190
PORTLAND	660	1007	775
MARYLAND			
BALTIMORE	377	411	277
MASSACHUSETTS			
BLUE HILL OBS R	522	701	497
BOSTON	393	459	385
WORCESTER	571	826	693
MICHIGAN			
ALPENA	663	1030	999
DETROIT	463	577	433
DETROIT METRO	540	689	493
FLINT	559	742	630
GRAND RAPIDS	591	808	558
HOUGHTON LAKE	698	1110	940
LANSING	619	890	991
MARQUETTE U	668	1076	879
MUSKEGON	581	848	610
SAULT STE MARIE	728	1243	1095
MINNESOTA			
DULUTH	860	1307	1100
INTERNATIONAL FALLS	683	1379	1209
MINNEAPOLIS	692	798	677
ROCHESTER	710	962	726
ST CLOUD	766	1060	822
MISSISSIPPI			
JACKSON	197	197	91
MERIDIAN	235	238	111
MISSOURI			
COLUMBIA REGIONAL	487	530	289
KANSAS CITY	469	514	277
ST JOSEPH	490	498	319
ST LOUIS	456	480	259
SPRINGFIELD	415	456	268
MONTANA			
BILLINGS	582	719	733
GLASGOW	698	902	885
GREAT FALLS	572	739	844
HAVRE	663	926	892
HELENA	615	894	1005
KALISPELL	723	1135	1256
MILES CITY	642	786	750
MISSOULA	647	992	1059
NEBRASKA			
GRAND ISLAND	551	646	475
LINCOLN	553	636	412
NORFOLK	587	696	537
NORTH PLATTE	608	799	545
OMAHA	522	583	378
SCOTTSBLUFF	542	670	627
VALENTINE	613	772	642
NEVADA			
ELKO	583	800	896
ELY	842	1047	987
LAS VEGAS	39	39	74
RENO	419	666	691
WINNEMUCCA	461	595	765
NEW HAMPSHIRE			
CONCORD	615	970	730
MT WASHINGTON OBS	1184	3046	2813
NEW JERSEY			
ATLANTIC CITY	424	512	297
ATLANTIC CITY	366	407	222
NEWARK	381	441	277
TRENTON	392	455	291
NEW MEXICO			
ALBUQUERQUE	367	402	225
CLAYTON	497	579	397
ROSWELL	275	293	212
NEW YORK			
ALBANY	544	807	588
BINGHAMTON	653	987	669
BUFFALO	573	803	602
NEW YORK	373	421	235
NEW YORK KENNEDY	373	432	289
NEW YORK LA GUARDIA	324	362	254
ROCHESTER	538	749	559
SYRACUSE	556	804	541
NORTH CAROLINA			
ASHEVILLE	411	499	319
CAPE HATTERAS R	135	136	76
CHARLOTTE	299	304	162
GREENSBORO	370	390	233
RALEIGH	302	309	198
WILMINGTON	172	172	80
NORTH DAKOTA			
BISMARCK	720	936	869
FARGO	788	1037	838
WILLISTON	740	964	929
OHIO			
AKRON	564	806	495
CINCINNATI ABBE OB	442	492	282
CLEVELAND	519	694	475
COLUMBUS	537	691	426
DAYTON	535	681	377
MANSFIELD	606	855	461
TOLEDO	596	792	501
YOUNGSTOWN	584	844	533
OKLAHOMA			
OKLAHOMA CITY	306	325	160
TULSA	317	333	153
OREGON			
ASTORIA	361	711	893
BURNS U	512	841	873
EUGENE	340	446	577
MEDFORD	338	426	481
PENDLETON	363	440	594
PORTLAND	319	422	570
SALEM	395	599	582
SEXTON SUMMIT R	301	751	841
PENNSYLVANIA			
ALLENTOWN	455	566	435
ERIE	519	752	623
HARRISBURG	418	498	344
PHILADELPHIA	387	431	287
PITTSBURGH	587	820	493
PITTSBURGH U	496	617	362
SCRANTON	519	707	532
WILLIAMSPORT	478	611	499
RHODE ISLAND			
PROVIDENCE	501	650	453
SOUTH CAROLINA			
CHARLESTON	159	159	74
CHARLESTON U			
COLUMBIA	219	219	117
GREENVILLE-SPARTANBG	297	308	154
SOUTH DAKOTA			
ABERDEEN	676	845	761
HURON	706	888	838
RAPID CITY	585	747	695
SIOUX FALLS	643	786	651
TENNESSEE			
BRISTOL	409	455	286
CHATTANOOGA	269	286	171
KNOXVILLE	326	339	185
MEMPHIS	234	234	149
NASHVILLE	349	380	190
OAK RIDGE	384	435	236
TEXAS			
ABILENE	270	287	89
AMARILLO	464	523	246
AUSTIN	170	170	59
BROWNSVILLE	24	24	5
CORPUS CHRISTI	59	59	7
DALLAS FT WORTH	214	214	66
DEL RIO	127	127	34
EL PASO	214	221	91
GALVESTON	90	90	22
HOUSTON INTERCON	173	173	44
LUBBOCK	363	363	170
MIDLAND	226	236	81
PORT ARTHUR	149	149	35
SAN ANGELO	226	223	73
SAN ANTONIO	160	160	32
VICTORIA	111	111	15
WACO	203	203	51
WICHITA FALLS	269	272	92
UTAH			
MILFORD	539	626	570
SALT LAKE CITY	436	470	512
WENDOVER	428	451	470
VERMONT			
BURLINGTON	654	990	762
VIRGINIA			
LYNCHBURG	370	400	207
NORFOLK	240	240	120
RICHMOND	336	348	224
ROANOKE	456	502	267
WALLOPS ISLAND	300	315	190
WASHINGTON			
OLYMPIA	470	878	836
QUILLAYUTE	427	1037	1078
SEATTLE	330	530	604
SEATTLE-TACOMA	307	464	729
SPOKANE	550	721	797
STAMPEDE PASS R	640	1022	1710
WALLA WALLA U	339	386	419
YAKIMA	476	612	666
WEST VIRGINIA			
BECKLEY	360	790	526
CHARLESTON	475	566	313
ELKINS	564	784	615
HUNTINGTON	460	537	311
PARKERSBURG U	470	568	314
WISCONSIN			
GREEN BAY	667	980	737
LA CROSSE	624	817	578
MADISON	650	930	700
MILWAUKEE	584	736	631
WYOMING			
CASPER	654	870	795
CHEYENNE	644	943	808
LANDER	857	856	842
SHERIDAN	696	923	857

COOLING DEGREE DAYS

(Base 65°F.)

OCTOBER 1976

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM	15	1426	1928
HUNTSVILLE	8	1215	1808
MOBILE	48	2401	2551
MONTGOMERY	23	1730	2232
ALASKA			
ANCHORAGE	0	3	0
ANNETTE	0	17	14
BARROW	0	0	0
BARTER ISLAND	0	0	0
BETHEL	0	0	0
BETTLES	0	27	17
BIG DELTA	0	36	34
COLD BAY	0	0	0
FAIRBANKS	0	39	52
GULKANA	0	39	9
HOMER	0	0	0
JUNEAU	0	6	0
KING SALMON	0	0	0
KODIAK	0	5	0
KOTZEBUE	0	0	0
MC GRATH	0	2	14
NOME	0	1	0
ST. PAUL ISLAND	0	0	0
SUMMIT			
TALKEETNA	0	5	6
UNALAKLEET	0	2	0
VALDEZ	0	0	0
YAKUTAT	0	0	0
ARIZONA			
FLAGSTAFF	0	98	140
PHOENIX	289	3874	3487
TUCSON	139	2726	2788
WINSLOW	0	1049	1203
YUMA	324	3837	4126
ARKANSAS			
FORT SMITH	16	1365	2022
LITTLE ROCK	42	1602	1925
CALIFORNIA			
BAKERSFIELD	204	2526	2173
BISHOP	3	827	1037
BLUE CANYON	9	294	302
EUREKA U	0	0	0
FRESNO	73	1437	1671
LONG BEACH	232	1414	962
LOS ANGELES	143	765	592
LOS ANGELES U	185	1165	1141
MT SHASTA R	0	232	286
OAKLAND	32	198	128
RED BLUFF	139	2009	1904
SACRAMENTO	83	1383	1159
SANDBERG R	26	641	800
SAN DIEGO	200	1110	708
SAN FRANCISCO	23	192	108
SAN FRANCISCO U	41	191	39
SANTA MARIA	18	175	84
STOCKTON	121	1403	1259
COLORADO			
ALAMOSA	0	26	88
COLORADO SPRINGS	0	435	461
DENVER	0	667	625
GRAND JUNCTION	0	1114	1140
PUEBLO	0	852	981
CONNECTICUT			
BRIDGEPORT	6	775	735
HARTFORD	6	819	584
DELAWARE			
WILMINGTON	6	1003	992
DIST.OF COLUMBIA			
WASHINGTON DULLES	7	779	940
WASHINGTON NATIONAL	15	1554	1415
FLORIDA			
APPALACHICOLA U	64	2102	2608
DAYTONA BEACH	186	2490	2774
FORT MYERS	246	3077	3429
JACKSONVILLE	85	2159	2530
KEY WEST	453	4223	4365
LAKELAND U	201	3093	3109
MIAMI	361	3664	3850
ORLANDO	247	3105	3041
PENSACOLA	66	2206	2659
TALLAHASSEE	87	2272	2532
TAMPA	202	2910	3177
WEST PALM BEACH	334	3242	3450
GEORGIA			
ATHENS	18	1415	1722
ATLANTA	11	1254	1589
AUGUSTA	34	1691	1990
COLUMBUS	36	1834	2137
MACON	63	1928	2284
ROME	15	1338	1615
SAVANNAH	70	1946	2295
HAWAII			
HILO	357	2724	2606
HONOLULU	446	3755	3606
KAHULUI	411	3281	3187
LIHUE	372	3600	3180
IDAHO			
BOISE	2	535	714
LEWISTON	5	687	657
POCATELLO	0	372	437
ILLINOIS			
CAIRO U	27	1485	1806
CHICAGO O HARE	8	766	664
CHICAGO MIDWAY	20	906	925
MOLINE	13	860	893
PEORIA	14	800	968
ROCKFORD	5	626	714
SPRINGFIELD	23	1021	1116
INDIANA			
EVANSVILLE	10	1112	1364
FORT WAYNE	4	664	748
INDIANAPOLIS	4	770	974
SOUTH BEND	4	682	695
IOWA			
BURLINGTON	10	804	994
DES MOINES	20	1050	928
DUBUQUE	8	571	606
SIOUX CITY	7	969	932
WATERLOO	5	668	675
KANSAS			
CONCORDIA	32	1400	1302
DODGE CITY	35	1531	1411
GOODLAND	1	868	925
TOPEKA	20	1294	1361
WICHITA	23	1417	1673
KENTUCKY			
COVINGTON	5	822	1080
LEXINGTON	4	770	1197
LOUISVILLE	10	1130	1268
LOUISIANA			
ALEXANDRIA	45	2145	2186
BATON ROUGE	51	2246	2563
LAKE CHARLES	47	2277	2699
NEW ORLEANS	68	2377	2663
SHREVEPORT	48	1836	2524
MAINE			
CARIBOU	0	231	128
PORTLAND	0	308	252
MARYLAND			
BALTIMORE	9	1149	1108
MASSACHUSETTS			
BLUE HILL OBS R	3	599	457
BOSTON	8	895	661
WORCESTER	0	443	387
MICHIGAN			
ALPENA	0	375	208
DETROIT	5	967	743
DETROIT METRO	3	706	654
FLINT	3	560	438
GRAND RAPIDS	0	638	575
HOUGHTON LAKE	0	308	250
LANSING	1	556	535
MARQUETTE U	4	393	216
MUSKEGON	1	436	469
SAULT STE MARIE	0	167	139
MINNESOTA			
DULUTH	0	271	176
INTERNATIONAL FALLS	0	281	176
MINNEAPOLIS	7	950	585
ROCHESTER	4	641	474
ST CLOUD	0	557	426
MISSISSIPPI			
JACKSON	47	1943	2306
MERIDIAN	18	1438	2224
MISSOURI			
COLUMBIA REGIONAL	22	1090	1269
KANSAS CITY	34	1296	1420
ST JOSEPH	20	1180	1334
ST LOUIS	25	1229	1475
SPRINGFIELD	29	1085	1382
MONTANA			
BILLINGS	0	547	498
GLASGOW	0	437	438
GREAT FALLS	5	389	339
HAVRE	3	496	395
HELENA	0	171	256
KALISPELL	0	121	117
MILES CITY	4	868	752
MISSOULA	M	158	188
NEBRASKA			
GRAND ISLAND	12	1088	1036
LINCOLN	10	1178	1148
NORFOLK	6	1060	925
NORTH PLATTE	0	533	802
OMAHA	17	1249	1173
SCOTTSBLUFF	1	830	666
VALENTINE	2	888	736
NEVADA			
ELKO	0	228	342
ELY	0	127	207
LAS VEGAS	93	2803	2940
RENO	0	236	329
WINNEMUCCA	0	489	407
NEW HAMPSHIRE			
CONCORD	1	419	349
MT WASHINGTON OBS	0	0	0
NEW JERSEY			
ATLANTIC CITY	3	765	864
ATLANTIC CITY U	2	672	835
NEWARK	6	1099	1024
TRENTON U	6	1053	968
NEW MEXICO			
ALBUQUERQUE	5	1141	1316
CLAYTON	3	727	767
ROSWELL	9	1786	1560
NEW YORK			
ALBANY	0	476	574
BINGHAMTON	0	301	369
BUFFALO	0	432	437
NEW YORK U	5	1076	1068
NEW YORK KENNEDY	2	786	861
NEW YORK LA GUARDIA	5	1158	1048
ROCHESTER	1	566	531
SYRACUSE	0	357	551
NORTH CARCLINA			
ASHEVILLE	2	545	872
CAPE HATTERAS R	53	1466	1543
CHARLOTTE	14	1255	1596
GREENSBORO	9	1048	1341
RALEIGH	19	1459	1394
WILMINGTON	39	1934	1958
NORTH DAKOTA			
BISMARCK	0	663	487
FARGO	4	766	473
WILLISTON	1	507	422
OHIO			
AKRON	0	424	634
CINCINNATI ABBE OB	4	908	1188
CLEVELAND	2	600	613
COLUMBUS	2	608	809
DAYTON U	1	669	936
MANSFIELD	0	402	818
TOLEDO	2	599	685
YOUNGSTOWN	0	461	518
OKLAHOMA			
OKLAHOMA CITY	50	1702	1876
TULSA	48	1685	1949
OREGON			
ASTORIA	1	24	13
BURNS U	0	227	289
EUGENE	3	231	239
MEDFORD	5	436	562
PENDLETON	3	578	656
PORTLAND	4	216	300
SALEM	3	132	232
SEXTON SUMMIT R	13	166	137
PACIFIC AREA			
GUAM TAGUAC R	456	4154	4166
JOHNSTON	476	4036	4266
KOROR R	547	5167	4996
KWAJALEIN	521	5013	5148
MAJURO	514	4653	4919
PAGO PAGO	496	4511	4413
PONAPE R	499	4766	4709
TRUK MOEN ISLAND	524	4946	4894
WAKE	549	4682	4571
YAP R	508	4616	4925
PENNSYLVANIA			
ALLENTOWN	2	797	772
ERIE	2	339	373
HARRISBURG	3	901	1025
PHILADELPHIA	7	1211	1104
PITTSBURGH	0	358	647
SCRANTON	0	601	608
WILLIAMSPORT	0	675	698
RHODE ISLAND			
PROVIDENCE	3	631	532
SOUTH CAROLINA			
CHARLESTON	52	1882	206
CHARLESTON U			
COLUMBIA	30	1775	208
GRNVLLE-SPRTNBRG	12	1135	157
SOUTH DAKOTA			
ABERDEEN	1	951	56
HURON	3	891	71
RAPID CITY	3	676	66
SIOUX FALLS	9	1040	71
TENNESSEE			
BRISTOL	0	753	110
CHATTANOOGA	8	1165	162
KNOXVILLE	5	1133	156
MEMPHIS	48	1800	202
NASHVILLE	10	1154	166
OAK RIDGE	0	771	136
TEXAS			
ABILENE	31	1925	242
AMARILLO	5	1013	146
AUSTIN	61	2412	287
BROWNSVILLE	190	3244	360
CORPUS CHRISTI	136	3055	335
DALLAS FT WORTH	72	2251	257
DEL RIO	73	2584	334
EL PASO	18	1735	209
GALVESTON	113	2542	292
HOUSTON INTERCON	42	2216	284
LUBBOCK	4	1422	164
MIDLAND	22	1671	224
PORT ARTHUR	61	2363	275
SAN ANGELO	27	1855	268
SAN ANTONIO	45	2383	296
VICTORIA	88	2652	307
WACO	73	2502	284
WICHITA FALLS	44	2060	260
UTAH			
MILFORD	0	512	61
SALT LAKE CITY	3	943	92
WENDOVER	0	1122	113
VERMONT			
BURLINGTON	0	483	35
VIRGINIA			
LYNCHBURG	13	928	110
NORFOLK	27	1558	144
RICHMOND	12	1385	132
ROANOKE	1	863	103
WALLOPS ISLAND	19	954	110
WASHINGTON			
OLYMPIA	0	14	10
QUILLAYUTE	0	0	
SEATTLE	0	73	11
SEATTLE-TACOMA	0	129	11
SPOKANE	0	293	31
STAMPEDE PASS R	0	14	
WALLA WALLA U	5	698	80
YAKIMA	0	336	4
WEST INDIES			
SAN JUAN P.R.	548	4728	420
WEST VIRGINIA			
BECKLEY	0	356	4
CHARLESTON	1	801	10
ELKINS	0	314	31
HUNTINGTON	4	867	10
PARKERSBURG U	3	741	10
WISCONSIN			
GREEN BAY	0	520	3
LA CROSSE	10	781	6
MADISON	2	627	4
MILWAUKEE	4	667	4
WYOMING			
CASPER	0	439	4
CHEYENNE	0	217	3
LANDER	0	394	3
SHERIDAN	0	382	4

STORM SUMMARY

OCTOBER 1976

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				; ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	† DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS
Alabama *																													
Alaska												5								5							3	
Arizona																											4		
Arkansas *																													
California																?	?									1	?	?	?
Colorado *																													
Connecticut											2	6				3													
Delaware												3																	
Florida	1	1			4																						5		
Georgia *																													
Hawaii																										1	1	3	
Idaho *																													
Illinois *																													
Indiana *																													
Iowa *																													
Kansas																				3	3								
Kentucky *																													
Louisiana *																													
Maryland & DC												4				2											6	5
Maine											1	5																	
Massachusetts											7	5																	
Michigan *																													
Minnesota *																													
Mississippi *																													
Missouri *																													
Montana *																													
Nebraska *																													
Nevada *																													
New Hampshire										1		4																	
New Jersey												?															3	?	?
New Mexico *																													
New York											2	5		2												1	1	4	?
North Carolina	5	2			6							5																5	4
North Dakota *																													
Ohio																				1									
Oklahoma *																													
Oregon *																													
Pacific *																													
Pennsylvania											5	7	5															7	4
Puerto Rico																4										1		4	0
Rhode Island												4																	
South Carolina	1	1			4						3	5	3			2											2	6	6
South Dakota *																													
Tennessee *																													
Texas	3	2			3			3	4		2	5	?															1	?
Utah *																													
Vermont *																													
Virginia	1	1			4							4														1		5	3
Virgin Islands												3																3	
Washington *																													
West Virginia															1													6	4
Wisconsin *																													
Wyoming *																													

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

OCTOBER 1976

Herbert J. Thompson, Office of Hydrology

Major river and flash flooding occurred in several areas of the Atlantic Slope Drainage during October. The most severe flooding in more than 40 years was reported on the Broad and Congaree Rivers in South Carolina, where losses exceeded $3 million. Widespread flash flooding occurred in the Piedmont area of North and South Carolina with the communities of Laurens, Gaffney, and Greenville, SC, suffering extensive losses. Widespread small stream flooding occurred in the headwaters of the Delaware, Susquehanna, and Potomac Rivers. Losses from flash flooding at Frederick, MD, approached $5 million. The U.S. Geological Survey reported record stages on a number of small streams in Maryland and the Carolinas. Moderate flooding occurred on several larger rivers, including the Potomac, Rappahanock, Rivanna, and James, in Virginia; the Yadkin and Rocky Rivers in North Carolina; and the Reedy, Saluda, Wateree, and Santee Rivers in South Carolina.

Elsewhere, major flooding occurred along the Greenbriar River, a tributary of the Kanawha River in the Ohio Basin in West Virginia. Losses exceeded $3 million. Significant flooding occurred on several Texas streams, including the Navasota, Guadalupe, Frio, and Nueces Rivers.

Urban and/or flash flooding was reported in Bullhead City, AZ, on the 1st, in southern Nevada on the 2d, Sonora, TX, on the 5th, Tallahassee, FL, on the 7th, Ozona, TX, on the 29th, and Sylmar, CA, on the 27th where one fatality was reported.

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
ATLANTIC SLOPE DRAINAGE		
Two periods of heavy rainfall during October caused flooding on a number of streams in the Northeast with significant damage in some areas. On the 21st and 22d amounts of 2 to 4 inches over central New Hampshire and southwestern Maine caused minor flooding on the Kennebec, Androscoggin, and Pemigawasset Rivers.	0	N.A.
In the headwaters of the Delaware River amounts of about 4 inches with reports of up to 8 inches in Delaware County, NY, occurred on the 8th-9th. The Beaver Kill crested just over flood stage at Cooks Falls, NY, and the East and West Branches of the Delaware crested just below flood stage. Losses of $100,000 were reported from urban flooding in the village of Deposit, NY. Crop damage of $4,000 was reported in Sullivan County, NY.	0	104
Rainfall over the Susquehanna River Basin averaged 267% of normal for the month -- the highest monthly rainfall for October since records began in 1943. Flow of the Susquehanna River was 500% of normal. The storm of the 8th-9th produced amounts of 3 to 5 inches in 30 hours over the headwaters of the Susquehanna, causing widespread small stream and urban flooding. Fifteen counties in the basin were designated as Federal Disaster Areas. The storm on the 20th with somewhat less rainfall but proportionately greater runoff, due to saturated soil conditions, also caused substantial urban and flash flooding. Both storms caused flooding on main rivers with crests about 2 feet over flood stage at several points on the upper Susquehanna.	0	N.A.
Severe flash flooding occurred along Carroll Creek in the Frederick, MD, area on the 9th-10th with 5 inches of rain reported there. Major damage occurred to residences and businesses in downtown Frederick with 367 people evacuated from an eight-block area. One bridge was washed out and another damaged. A waste water treatment plant was out of order for 36 hours. The center of the city was covered by up to 5 feet of mud. The Monacacy River crested more than 10 feet over flood stage.	0	4,900

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
ATLANTIC SLOPE DRAINAGE--Cont'd		
Elsewhere in the Potomac River Basin minor to moderate flooding occurred on the 9th-11th on larger streams with widespread small stream flooding. The South Branch of the Potomac crested more than 8 feet over flood stage at Springfield, WV, and crests about 2 feet over flood stage occurred along the Shenandoah River and major tributaries. The main stem of the Potomac reached 11 feet over flood stage at Point of Rocks, MD, and crests 2 to 3 feet over flood stage occurred in the Washington, D. C., area with little serious damage. On downstream tributaries the Rapidan reached 3.5 feet over flood stage at Culpepper, VA, and the Rappahanock 7 feet over flood stage at Remington.	0	N.A.
The James River Basin received above normal rainfall during October with totals averaging about 7 inches and some areas receiving 10 inches. The bulk of this rain occurred on the 7th-10th with headwater areas receiving more than 5 inches. The Rivanna River crested more than 5 feet over flood stage and crests 3 to 5 feet over flood stage occurred along the lower James from Bremo Bluff to Richmond.	0	N.A.
Significant losses were reported from flash flooding on Little Sugar and Sugar Creeks at Pineville in Mecklenburg County, NC, as a result of heavy rains on the 7th-9th. Three day totals of as much as 7 inches were reported in the mountainous areas of North Carolina. Crests of 3 to 5 feet over flood stage occurred along the Yadkin, Rocky, and South Fork Catawba Rivers in North Carolina and minor flooding along portions of the Dan and Roanoke Rivers in southern Virginia.		
In South Carolina the most severe flooding in more than 40 years occurred on the Broad and Congaree Rivers, and flash flooding caused heavy damage across the Piedmont and foothills with the communities of Laurens, Spartanburg, Greenville, and Gaffney most severely affected. Three-day rainfall totals averaged 5-6 inches with 9 inch centers at Greenwood and downtown Greenville, Laurens, Forest City, and Gramling in upper Spartanburg County. This heavy rainfall has been attributed to a polar jet stream at the 500 millibar level which has been found to cause excessive rainfall. At the surface a slow moving cold front stalled over the western Carolinas where precipitable water amounted to 1.5 inches - more than 3 times normal.	0	3,328
In the Saluda River Basin the Laurens Plaza Shopping Center was flooded by Reedy Fork Creek for the second time in four years, with losses estimated at $2 million. The Saluda River crested 12.5 feet over flood stage at Chappells. The Reedy River crested nearly 4 feet over flood stage at Greenville, where widespread flash flooding occurred. Several hundred acres of cotton, soybeans, and corn were flooded in the basin with losses estimated at $57,500.		
Severe flash flooding occurred in the Broad River Basin. Flooding at Gaffney was said to be the worst in memory of residents there. The Broad River crested 7 feet over flood stage at Gaffney and 23 feet over flood stage at Blair - the highest stage since 1929. The Neal Shoals power plant was flooded at a loss of at least $100,000. Losses in the Broad River Basin totaled $712,000, of which $350,000 occurred		

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)

ATLANTIC SLOPE DRAINAGE--Cont'd

along the main stem and $362,000 was caused by flash flooding in Spartanburg County. Savings from flood warnings were estimated at $500,000.

In the Congaree Basin much of the flood water from the Saluda River was stored in Lake Murray, which rose about 4 feet in lake level in 4 days. Inflow of flood water from the Broad River caused a rapid rise to flood stage of 19 feet at Columbia, SC, early on the 10th and to over 26 feet by 8 p.m. on the same day. The crest of 29.74 feet occurred at 1 p.m. on the 11th. This was the highest crest at Columbia since the crest of 33.3 feet on April 8, 1936. The Columbia hydroelectric plant of South Carolina Electric and Gas Company was put out of service for about one month with a loss of about $50,000. The dike along the left bank of the river on the southern edge of Columbia broke in several places flooding 3,000 acres of soybeans, damaging a road and coming up to encircle the Heathwood School yard, lacking only a little of flooding the school. It is estimated that a total of 4,500 acres of soybeans were flooded in Richland, Lexington, and Calhoun Counties. Using an estimate of $60 per acre, the loss in soybeans will run $270,000. Loss of livestock is estimated to total 175 head for a loss of $20,000. Surprisingly few housing districts were endangered by flooding, although some streets and yards were flooded. At St. Matthews, 17 miles northwest, the flood stage of 115 feet was reached late on the 9th and a crest of 126.95 feet occurred on the 12th. Flood waters did not drop below flood stage until the morning of the 15th. In fact, some farmers were not able to enter swampland to search for cattle for three weeks due to high water.

In the Catawba - Wateree Basin the excessive runoff filled Lake Wylie on the 9th and Lake Norman on the 10th. Lake Wateree, with no flood gates, was over full pool stage on the 10th-13th cresting nearly 5 feet over full pool. Losses were limited to about $30,000 due to adequate warnings. Flooding occurred on the Wateree River below Lake Wateree from Camden downstream to Lake Marion with the crest at Camden estimated at nearly 5 feet over flood stage. Losses in the basin were estimated at $100,000, with savings due to warnings at $650,000.

Downstream, flood waters pouring into Lake Marion made it necessary for flood gates to be opened on the 10th to divert water into the lower Santee River. This spillage peaked at 64,000 cfs. on the 14th and continued the rest of the month. Flooding occurred along the lower Santee River for about two weeks. At Jamestown, SC, flood stage of 10 feet was reached early on the 17th and a crest of 15.0 feet occurred on the 20th. Warnings were issued early ahead of the start of this flooding. This was one of the most efficient, thorough warnings that has ever been issued for the lower Santee River. Losses in this area were estimated at $25,000 with savings of $150,000. In the Pee Dee Basin High Rock Lake filled by the 11th. Opening of the flood gates caused one to two feet of flooding downstream with losses of $15,000 and savings of $50,000.

Savings from warnings in South Carolina during this serious flooding were substantial and are estimated to be at least

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

OCTOBER 1976

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
ATLANTIC SLOPE DRAINAGE--Cont'd		
$1.7 million. These savings resulted from removal of livestock and farm and logging equipment from flood plains and construction of temporary levees.		
UPPER MISSISSIPPI RIVER BASIN		
Precipitation continued deficient over the area during October. Record low flows were reported on principal streams in Iowa. Hydro-power generation on some Wisconsin streams reached record lows for October.		
OHIO RIVER BASIN		
Significant flooding occurred on the Greenbriar River and minor flooding on several other streams in West Virginia. Rainfall averaged 4.7 inches over the Greenbriar Basin on the 6th-9th with a maximum of 6.1 inches reported at Bartow. The average rainfall over the headwater area of the Greenbriar River above Marlinton, WV, where the worst flooding occurred, was about 6 inches, most of which fell during a 48-hour period from the 7th-9th. Losses around Marinton, where 600 people were evacuated, were estimated at $500,000 with savings due to warnings of $500,000. A crest of 3 feet over flood stage occurred on the Greenbriar River at Marlinton. Total losses in the Greenbriar Basin were estimated at $3,134,000 by the Corps of Engineers. The Little Kanawha crested 3 feet over flood stage at Glenville, WV with losses of $73,600.	0	3,259
Rainfall ranged from 2 to 3.5 inches over the Monongahela Basin during this period with minor flooding on the West Fork, Cheat, and the Monongahela Rivers from Charleroi to Braddock, PA.		
WEST GULF OF MEXICO DRAINAGE		
Minor to moderate flooding occurred on several streams in Southern Texas as soil conditions continued wet. Flooding early in the month was in response to heavy rains late in September and affected mainly the Nueces River. About 3 feet of flooding occurred along the Navasota River as a result of 2 to 3 inch rains on the 5th-6th. The most significant rainfall was on the 29th-30th with amounts of around 4 inches. The Frio River crested 9 feet over flood stage at Calliham and the Atascasa 3 feet over flood stage at Whittsett. More than 6 feet of flooding occurred on the Lower Guadalupe and crests from 7 to 14 feet over flood stage were reported on the Nueces River from Tilden to Mathis Bridge.	0	N.A.
PACIFIC SLOPE DRAINAGE		
Flash flooding was reported the afternoon of the 27th in the vicinity of Sylmar, CA. A 19-year old woman was drowned by a 4 foot wall of water which lasted about 3 minutes. She was washed under a pickup truck while pushing a motorcycle across the street.	1	N.A.
PUERTO RICO		
The greatest one hour rainfall amount ever recorded in	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

OCTOBER 1976

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
PUERTO RICO--Cont'd		

Puerto Rico resulted from a high intensity localized thunderstorm which occurred between about 1430 LST and 1630 LST on October 14 in the area of Gurabo, located in the Rio Grande de Loiza basin and directly in the upper watershed of the Gurabo River, a main tributary of the Loiza. This local convective thunderstorm generated 5.6 inches of rain in two hours and 4.3 inches in one hour at the Gurabo AES recording gage. Although a number of small streams and dry creek beds overran into a number of small dwellings, the Gurabo itself did not leave its banks.

On the afternoon of the 30th the first cold frontal passage of the year occurred between the hours of about 1300-1500 LST at San Juan, P. R. and 1600-1800 at St. Thomas with intense thunderstorm activity and heavy rain showers of two to four inches in a three-hour period. Civil Defense reported that the Tanama River, a tributary of Rio Grande de Arecibo on the north central slopes, and also the Portugues and Bucana Rivers in the area of Ponce flooded in limited areas. Some evacuations were made in these areas for a brief time.

FLOOD STAGE DATA

	Flood stage	Flood dates			
ATLANTIC SLOPE DRAINAGE					
Rockdale, NY					
Bainbridge, NY				15.25	
				14.70	
Conklin, NY				13.3	
				12.74	
			9	15.15	
			10	23.44	
			10	19.33	
				30.52	
				25.31	
				27.19	
				13.18	
				9.41	
Culpepper, VA					
Remington, VA					
				23.5	
Columbia, VA				E 25.0	
Cattersville, VA				20.59	
Richmond, VA Westham				12.55	

	Flood stage	Flood dates			
Yadkin:					
Pee Dee:					
Peedee, SC				19.9	
				19.2	
Pacolet:					
Clifton, SC					
				17.24	
Blair, SC				37.0	
Reedy:					
Greenville, SC					
Pelzer, SC				12	
Chappells, SC					
Congaree:					
				29.74	
				126.95	
Meadenville, NC					
Wateree:					
Wateree Reservoir, SC				104.9	
Camden, SC				E 28.8	
Santee:					
Jamestown, SC					
Stevens Creek:					
Modoc, SC					
Savannah:					
West Fork:					
Clarksburg, WV					
Tygart:					
				11.79	
				14.24	
				18.64	
				14.57	
				12.87	
Monongahela:					
Charleroi, PA				28.3	
				20.2	
				12.5	
Braddock, PA				20.4	
Glenville, WV					
				13.10	
Buckeye, WV				18.5	
				20.	

FLOOD STAGE DATA

(All dates in October unless otherwise specified)

OCTOBER 19

River and station	Flood stage	Above flood stages –dates		Crest	
		From	To	Stage	Date
	Ft			Ft	
OHIO RIVER BASIN-Cont'd					
French Broad:					
Blantyre, NC	17	10	13	17.1	10
WHITE BASIN					
Cache:					
Patterson, AR	7	28	1/	7.5	Nov 1
WEST GULF OF MEXICO DRAINAGE					
Trinity:					
Moss Bluff, TX	4	13	16	4.55	14
Navasota:					
NR Easterly, TX	14	6	11	17.3	8
NR Bryan, TX	12	9	14	14.22	10
San Marcos:					
Luling, TX	24	30	31	24.65	30
Guadalupe:					
Gonzales, TX	20	30	31	21.13	31
Cuero USGS, TX	20	31	1/	23.7	Nov 2
Victoria, TX	21	30	1/	26.9	Nov 3
Dupont, TX	20	1	1	20.5	1
		16	1/	26.5	30

River and station	Flood stage	Above flood stages –dates		Crest	
		From	To	Stage	Date
	Ft			Ft	
WEST GULF OF MEXICO DRAINAGE-Cont'd					
Atascosa:					
Whitsetta, TX	20	29	31	# 21.0	30,31
Frio:					
Gallihan, TX	12	30	1/	21.18	31
Nueces:					
Tilden, TX	14	1	14	16.60	12
		29	1/	21.40	Nov 1
NR Three Rivers, TX	25	5	6	26.0	6
		29	1/	36.6	Nov 4
Mathis Bridge, TX	15	4	9	24.3	5
		16	18	17.9	18
		27	1/	28.7	Nov 6
Calallen, TX	7	Sept 21	5	# 8.5	Sept 27,
		5	22	# 8.6	9
		27	1/	# 9.6	Nov 7,8

RAWINSONDE DATA

Average monthly values

OCTOBER 1970

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
ALBANY, NY 1007 MB						
SFC	31	86	4.5	2.5	27	1.2
1000	24	189	5.4	2.0	24	1.3
950	31	560	5.1	.2	27	4.2
900	31	1,000	2.9	-1.9	27	4.8
850	31	1,461	1.1	-5.6	28	8.6
800	31	1,949	.2	-9.6	28	9.7
750	31	2,465	-1.6	-11.5	27	10.2
700	31	3,012	-4.4	-16.1	27	12.1
650	31	3,593	-7.0	-18.6	27	13.4
600	31	4,214	-10.4	-21.7	26	14.7
550	31	4,886	-13.9	-25.3	26	17.3
500	31	5,597	-18.4	-29.7	26	19.9
450	31	6,376	-23.5	-35.1	26	21.6
400	31	7,227	-29.5	-40.4	26	22.8
350	31	8,170	-35.9	-43.6	26	25.6
300	30	9,226	-42.8	-46.0	25	29.4
250	30	10,437	-49.8		25	29.5
200	30	11,878	-55.0		25	31.7
175	30	12,728	-56.6		25	30.5
150	30	13,703	-57.7		25	28.1
125	30	14,849	-59.2		25	21.9
100	30	16,244	-59.9		25	19.3
80	30	17,644	-57.9		25	14.0
70	30	18,487	-57.7		25	12.0
60	30	19,461	-57.1		26	11.6
50	30	20,618	-55.9		26	9.3
40	27	22,042	-54.9		26	10.6
30	28	23,890	-52.6		26	10.8
25	28	25,071	-51.5		26	12.5
20	23	26,521	-50.7		26	12.0
15	28	28,405	-48.7		26	14.8
10	9	31,128	-44.2			
7						
ALBUQUERQUE, NM 846 MB						
SFC	31	1,819	6.1	-2.2	08	1.8
1000						
950						
900						
850						
800	31	2,017	8.0	-4.2	09	.7
750	31	2,548	5.5	-6.4	31	2.3
700	31	3,108	2.1	-10.1	31	3.9
650	31	3,703	-1.6	-14.2	30	4.2
600	31	4,336	-5.6	-18.2	29	4.3
550	31	5,013	-9.7	-23.3	29	6.4
500	31	5,737	-14.5	-27.8	28	7.7
450	31	6,521	-20.4	-33.4	29	8.4
400	31	7,383	-26.8	-38.1	27	13.2
350	31	8,336	-34.2	-44.7	27	14.1
300	30	9,393	-41.9	-50.7	27	20.7
250	30	10,606	-50.0		27	24.7
200	30	12,042	-56.5		27	28.5
175	30	12,885	-58.9		27	26.3
150	30	13,846	-61.8		27	23.1
125	30	14,968	-64.5		28	20.8
100	30	16,325	-66.1		28	14.6
80	30	17,684	-64.3		29	9.8
70	30	18,520	-63.5		29	6.1
60	30	19,453	-61.9		28	5.2
50	30	20,588	-59.2		28	4.5
40	27	22,008	-57.4		27	5.1
30	28	23,826	-54.2		26	7.4
25	28	25,005	-52.9		26	8.6
20	23	26,453	-50.6		26	9.3
15	28	28,343	-48.9		26	10.8
10	8	31,043	-46.1			
7						
AMARILLO, TX 893 MB						
SFC	31	1,095	5.2	1.9	27	1.3
1000						
950						
900						
850						
800						
750						
700						
650						
600						
550						
500						
450						
400						
350						
300						
250						
200						
175						
150						
125						
100						
80						
70						
60						
50						
40						
30						
25						
20						
15						
10						
7						
ANCHORAGE, AK 1011 MB						
SFC	31	45	.5	-3.1	05	1.0
1000	19	114	3.8	-.8	11	1.1
950	31	403	.6	-4.6	09	1.8
900	31	896	-1.2	-6.9	11	2.9
850	31	1,350	-4.2	-8.6	14	4.2
800	31	2,006	8.0	-4.0	29	3.6
750	31	2,537	5.5	-6.5	30	3.5
700	31	3,098	2.5	-10.9	29	4.0
650	31	3,693	-1.6	-13.7	29	4.5
600	31	4,325	-5.5	-18.4	29	5.3
550	31	5,003	-9.7	-24.3	29	7.2
500	31	5,731	-14.6	-29.1	29	8.7
450	31	6,521	-20.2	-33.9	28	10.8
400	31	7,382	-26.8	-38.1	27	13.2
350	31	8,336	-34.2	-44.7	27	14.1
300	30	9,393	-41.9	-50.7	27	20.7
250	30	10,606	-50.0		27	24.7
200	30	12,042	-56.5		27	28.5
175	30	12,885	-58.9		27	26.3
150	30	13,846	-61.8		27	23.1
125	30	14,968	-64.5		28	20.8
100	30	16,325	-66.1		28	14.6
80	30	17,684	-64.3		29	9.8
70	30	18,520	-63.5		29	6.1
60	30	19,453	-61.9		28	5.2
50	30	20,588	-59.2		28	4.5
40	27	22,008	-57.4		27	5.1
30	28	23,826	-54.2		26	7.4
25	28	25,005	-52.9		26	8.6
20	23	26,453	-50.6		26	9.3
15	28	28,343	-48.9		26	10.8
10	8	31,043	-46.1			
7						
ANNETTE, AK 1011 MB						
SFC	31	37	7.1	4.4	15	1.3
1000	28	143	7.5	4.1	17	1.4
950	31	549	5.5	.0	17	4.5
900	31	990	3.2	-2.6	18	6.0
850	31	1,451	.5	-6.1	20	6.6
800	31	1,938	-2.8	-10.6	22	7.7
750	31	2,447	-4.9	-12.2	22	9.8
700	31	2,988	-7.2	-18.9	23	11.2
650	31	3,563	-10.3	-22.7	23	12.6
600	31	4,175	-14.0	-25.6	24	13.0
550	31	4,830	-18.3	-30.2	24	15.3
500	31	5,535	-23.2	-33.6	24	18.1
450	31	6,296	-28.1	-37.0	25	19.9
400	31	7,134	-34.0	-40.9	25	23.0
350	31	8,059	-40.9	-42.1	25	24.7
300	30	9,088	-48.0		26	27.6
250	30	10,270	-55.0		27	27.4
200	30	11,692	-58.1		26	26.6
175	30	12,528	-57.0		26	26.8
150	30	13,503	-50.9		26	19.7
125	30	14,669	-57.0			
100	27	16,077	-58.1			
80	27	17,307	-59.4			
70	30	18,358	-56.2			
60	15	19,333	-57.5			
50	14	20,481	-58.1			
40	13	21,873	-59.4			
30	12	23,700	-58.9			
25	11	24,843	-58.5			
20	7	26,181	-59.8			
15						
10						
7						
ATHENS, GA 989 MB						
SFC	31	246	9.4	7.0	35	.5
1000						
950	31	582	12.2	5.3	01	.6
900	31	1,034	9.9	3.3	30	1.1
850	31	1,507	8.2	-1.5	27	2.9
800	31	2,007	6.3	-5.0	27	4.2
750	31	2,534	4.4	-9.7	27	5.7
700	31	3,094	2.1	-13.8	27	7.2
650	31	3,689	-.5	-15.8	27	9.3
600	31	4,325	-3.7	-19.3	27	10.3
550	31	5,008	-8.0	-23.1	27	11.9
500	31	5,741	-13.1	-28.5	26	13.9
450	31	6,538	-18.4	-32.7	26	16.1
400	31	7,404	-24.7	-38.2	26	18.5
350	30	8,366	-31.7	-44.6	27	21.4
300	30	9,435	-39.8	-49.0	27	25.9
250	30	10,657	-48.4		27	30.6
200	30	12,102	-56.1		27	32.4
175	30	12,944	-59.7		27	33.6
150	30	13,899	-63.1		27	30.1
125	29	15,018	-65.7		27	26.2
100	29	16,369	-66.6		26	17.8
80	29	17,726	-64.2		26	12.1
70	29	18,547	-62.5		25	8.5
60	28	19,504	-61.0		26	6.0
50	28	20,643	-58.8		25	3.3
40	28	22,052	-56.2		27	1.6
30	28	23,890	-53.4		09	1.4
25	28	25,070	-51.2		12	1.4
20	27	26,533	-49.0		23	.5
15	28	28,427	-47.6		22	1.4
10	27	31,140	-44.5		28	4.7
7	7	33,546	-41.4			
BARROW, AK 1013 MB						
SFC	28	8	-10.3	-12.5	01	2.3
1000	26	114	-10.6	-11.8	33	3.1
950	28	499	-11.0	-12.8	02	1.6
900	28	913	-12.6	-15.1	33	1.4
850	28	1,347	-15.0	-17.6	30	1.7
800	28	1,805	-16.3	-22.5	29	2.1
750	28	2,289	-17.6	-26.5	28	2.7
700	28	2,804	-19.5	-28.6	27	3.1
650	28	3,352	-22.4	-30.8	27	3.5
600	28	3,936	-25.7	-33.7	26	4.3
550	28	4,561	-29.6	-36.7	26	5.6
500	28	5,235	-34.2	-40.8	26	7.0
450	28	5,964	-39.4	-43.8	26	7.7
400	28	6,761	-44.8	-49.6	26	8.9
350	28	7,647	-50.1		26	9.8
300	28	8,640	-54.7		26	10.4
250	28	9,803	-55.3		26	10.3
200	28	11,236	-52.6		27	9.1
175	28	12,099	-52.3		27	8.6
150	28	13,096	-52.7		27	8.4
125	28	14,273	-53.2		27	8.2
100	27	15,703	-53.9		27	8.9
80	27	17,134	-55.2		27	9.9
70	23	17,995	-55.5		27	11.3
60	28	18,976	-56.4		28	12.2
50	22	20,129	-57.0		28	12.7
40	19	21,531	-58.0		28	14.7
30	8	23,360	-58.5			
25						
20						
15						
10						
7						
BARTER ISLAND, AK 1011 MB						
SFC	30	15	-10.6	-13.0	23	1.5
1000	29	100	-9.4	-12.0	24	1.1
950	30	493	-9.8	-12.9	28	1.5
900	30	910	-11.0	-14.7	27	1.8
850	30	1,348	-12.3	-17.3	26	2.4
800	31	1,811	-13.6	-19.6	25	3.0
750	31	2,300	-15.4	-21.4	25	4.0
700	31	2,819	-18.1	-24.2	24	4.6
650	31	3,370	-20.7	-27.0	24	5.3
600	31	3,957	-24.2	-31.6	24	6.7
550	31	4,587	-28.2	-36.0	24	6.7
500	31	5,266	-32.7	-40.5	24	8.5
450	31	5,999	-37.7	-43.3	24	9.8
400	31	6,801	-43.7		24	10.2
350	30	7,690	-49.5		24	11.8
300	29	8,678	-54.8		23	12.7
250	29	9,837	-56.2		24	12.4
200	29	11,266	-52.8		25	11.6
175	29	12,129	-52.3		25	11.9
150	29	13,127	-52.4		26	11.2
125	29	14,304	-53.2		26	11.8
100	28	15,746	-53.7			
80	5	17,110	-57.5			
70	5	17,952	-58.2			
60						
50						
40						
30						
25						
20						
15						
10						
7						
BETHEL, AK 1000 MB						
SFC	31	39	-2.4	-4.2	03	1.5
1000	13	95	2.5	-.8	10	1.5
950	31	449	-1.8	-5.6	08	2.6
900	31	878	-4.2	-8.0	08	1.7
850	31	1,327	-6.6	-11.2	10	1.2
800	31	1,798	-9.1	-14.8	10	1.3
750	31	2,295	-11.7	-18.6	13	1.2
700	31	2,821	-14.7	-22.4	16	.9
650	31	3,379	-18.0	-25.8	16	.8
600	31	3,972	-21.9	-29.8	17	1.1
550	31	4,608	-26.0	-33.6	20	2.2
500	31	5,291	-30.7	-38.1	21	2.6
450	31	6,031	-36.1	-43.1	22	3.2
400	31	6,839	-41.8	-47.3	23	3.9
350	31	7,737	-46.7		25	5.1
300	31	8,745	-51.4		25	5.8
250	30	9,922	-53.6		25	6.0
200	30	11,365	-51.2		25	5.8
175	30	12,234	-50.8		25	5.6
150	30	13,238	-50.9		25	6.4
125	30	14,424	-51.3		26	6.7
100	31	15,873	-51.8		26	7.6
80	31	17,320	-52.2		26	7.9
70	30	18,178	-52.8		26	8.0
60	30	19,172	-53.1		26	8.0
50	30	20,347	-53.7		27	9.1
40	28	21,790	-53.6		27	8.3
30	27	23,649	-53.5		28	9.3
25	27	24,822	-53.6		29	10.2
20	22	26,284	-53.6		29	10.4
15	14	28,186	-53.8		30	9.6
10	5	30,802	-54.4			
7						
BISMARCK, ND 959 MB						
SFC	31	503	.7	-3.8	08	.0
1000						
950	28	590	.9	-4.0	29	.5
900	31	1,015	4.1	-5.0	29	3.7
850	31	1,478	2.0	-6.2	30	6.6
800	31	1,966	-.2	-10.0	31	8.7
750	31	2,481	-2.4	-12.6	31	10.0
700	31	3,025	-5.5	-17.8	30	11.3
650	31	3,603	-8.4	-21.0	30	11.7
600	31	4,220	-11.7	-24.7	30	13.0
550	31	4,882	-15.6	-27.7	31	14.8
500	31	5,594	-20.6	-32.0	30	16.8
450	31	6,366	-26.1	-36.0	30	18.4
400	31	7,208	-32.2	-42.3	30	20.6
350	31	8,140	-39.0	-43.0	31	22.1
300	31	9,170	-47.0		31	22.6
250	30	10,362	-54.6		30	25.6
200	30	11,777	-57.3		30	24.2
175	30	12,622	-57.0		30	23.0
150	30	13,598	-57.5		30	19.2
125	30	14,747	-58.6		30	18.1
100	29	16,147	-58.8		29	15.2
80	29	17,549	-58.6		29	12.1
70	29	18,388	-58.9		29	11.4
60	29	19,356	-58.6		29	9.9
50	29	20,504	-58.2		29	9.3
40	29	21,912	-57.6		29	7.6
30	28	23,735	-56.4		28	7.6
25	28	24,894	-55.9		27	8.5
20	26	26,318	-54.1		26	10.9
15	27	28,174	-52.0		27	13.6
10						
7						
BOISE, ID 919 MB						
SFC	31	871	5.0	-1.4	12	1.8
1000						
950						
900	31	1,045	9.8	-.8	11	1.0
850	31	1,521	9.6	-3.7	30	1.1
800	31	2,021	6.9	-6.1	30	2.4
750	31	2,549	4.1	-9.8	30	4.5
700	31	3,106	1.0	-14.6	30	6.0
650	31	3,699	-2.0	-17.3	30	7.1
600	31	4,330	-6.0	-21.0	30	8.6
550	31	5,006	-10.4	-25.2	30	9.5
500	31	5,732	-15.5	-29.4	30	9.4
450	31	6,518	-21.3	-33.9	30	10.4
400	31	7,376	-27.7	-39.4	30	11.5
350	31	8,325	-35.1	-45.4	30	13.9
300	31	9,378	-43.6	-51.3	31	15.8
250	30	10,576	-52.5		31	16.8
200	30	11,992	-59.7		30	17.8
175	30	12,826	-60.9		30	17.4
150	30	13,784	-61.7		30	17.0
125	30	14,911	-62.4		30	15.8
100	30	16,285	-63.1		30	13.7
80	30	17,662	-62.2		30	10.1
70	30	18,489	-61.6		30	8.9
60	30	19,446	-60.9		30	7.0
50	30	20,582	-60.2		30	6.9
40	30	21,975	-59.8		30	5.8
30	30	23,783	-57.6		29	5.8
25	28	24,943	-56.1		29	6.8
20	28	26,377	-54.1		28	8.2
15	24	28,223	-51.9		27	10.0
10	14	30,875	-49.4		27	14.1
BOOTHVILLE, LA 1017 MB						
SFC	31	1	17.1	14.4	36	2.2
1000	31	145	17.4	12.8	02	3.1
950	31	581	14.7	10.1	03	2.9
900	31	1,037	12.7	5.2	03	1.2
850	31	1,517	11.7	-1.6	31	1.4
800	31	2,023	11.5	-6.2	29	3.1
750	31	2,559	8.6	-9.6	28	3.8
700	31	3,126	6.2	-12.2	27	5.3
650	31	3,730	3.1	-14.4	27	6.9
600	31	4,374	-.5	-17.3	26	8.1
550	31	5,064	-4.8	-21.5	26	10.8
500	31	5,807	-9.5	-26.2	26	12.9
450	31	6,613	-14.9	-30.5	27	15.3
400	31	7,492	-21.5	-34.5	26	18.3
350	31	8,466	-28.4	-38.3	26	21.9
300	31	9,551	-36.4	-45.7	26	26.8
250	30	10,790	-45.9		27	31.1
200	30	12,243	-55.7		27	34.5
175	30	13,083	-60.9		27	32.6
150	30	14,030	-65.7		27	30.3
125	30	15,127	-70.0		27	25.7
100	30	16,448	-71.4		27	16.5
80	30	17,776	-67.8		26	9.1
70	28	18,586	-65.0		25	4.0
60	27	19,531	-62.7		26	2.0
50	26	20,667	-59.4		18	.8
40	26	22,074	-56.3		19	2.1
30	25	23,917	-52.9		08	3.7
25	24	25,106	-50.4		08	3.6
20	24	26,568	-48.6		08	3.3
15	24	28,471	-46.0		07	.8
10	20	31,191	-42.8		27	4.6
BROWNSVILLE, TX 1016 MB						
SFC	31	7	17.6	14.4	03	1.5
1000	31	139	19.6	14.9	05	1.7
950	31	580	17.5	12.3	10	2.7
900	31	1,041	15.1	7.7	13	1.7
850	31	1,524	13.2	3.6	21	1.7
800	31	2,033	11.8	-1.1	24	2.4
750	31	2,571	10.0	-3.0	24	3.0
700	31	3,142	7.0	-4.6	26	4.7
650	31	3,748	3.8	-9.9	27	6.1
600	31	4,394	.2	-13.6	26	7.1
550	31	5,086	-3.8	-18.9	26	8.2
500	31	5,832	-8.4	-24.8	26	11.2
450	31	6,643	-13.2	-28.6	26	14.0
400	31	7,529	-19.4	-33.5	26	16.9
350	31	8,510	-26.8	-38.8	26	20.4
300	31	9,601	-35.0	-46.4	26	24.0
250	31	10,846	-45.1		26	28.5
200	31	12,299	-56.3		26	28.1
175	31	13,138	-62.1		27	29.1
150	31	14,077	-68.1		27	26.7
125	31	15,160	-73.6		27	21.9
100	31	16,452	-76.4		27	13.3
80	31	17,747	-72.1		27	9.7
70	31	18,541	-68.2		25	1.1
60	31	19,476	-64.6		11	2.7
50	31	20,597	-61.4		11	3.8
40	25	21,993	-58.0		13	5.4
30	25	23,820	-54.0		07	7.0
25	24	24,997	-51.5		08	7.1
20	24	26,443	-49.1		08	8.7
15	21	28,356	-46.2		09	9.5
10	11	31,070	-43.6			
BUFFALO, NY 991 MB						
SFC	31	218	5.6	2.0	25	1.6
1000						
950	31	562	5.4	.6	26	3.9
900	31	1,002	3.1	-1.4	27	6.4
850	31	1,483	.7	-5.0	28	7.3
800	31	1,950	-.6	-9.1	28	7.8
750	31	2,465	-2.5	-12.3	28	8.9
700	31	3,009	-5.2	-17.0	27	10.3
650	31	3,588	-8.1	-20.1	27	11.0
600	31	4,206	-11.1	-23.7	27	12.8
550	31	4,870	-14.8	-27.2	27	14.7
500	31	5,585	-19.5	-31.3	27	16.4
450	31	6,359	-24.7	-35.7	26	18.3
400	31	7,206	-31.0	-40.3	26	20.8
350	31	8,143	-37.7	-43.8	26	23.0
300	31	9,186	-45.0		26	24.3
250	31	10,388	-51.3		26	27.5
200	30	11,815	-55.6		26	28.3
175	30	12,664	-56.6		26	26.2
150	30	13,640	-57.4		26	24.1
125	30	14,790	-58.3		26	20.9
100	28	16,199	-59.1		26	18.9
80	28	17,602	-58.3		26	16.5
70	25	18,444	-58.0		26	14.2
60	27	19,422	-56.9		26	13.9
50	26	22,005	-55.1		26	11.5
40	26	23,852	-53.2		25	12.4
30	25	25,030	-52.0		26	12.0
25	24	25,484	-50.7		26	13.7
20	22	28,360	-49.8		26	15.9
15	11	31,049	-48.9			
CAPE HATTERAS, NC 1017 MB						
SFC	31	4	19.1	12.1	34	1.0
1000	31	145	18.4	10.1	34	1.8
950	31	586	13.4	7.2	30	2.3
900	31	1,033	10.8	4.2	26	3.2
850	31	1,508	8.3	-.5	25	5.4
800	31	2,008	6.0	-6.2	25	7.2
750	31	2,538	4.8	-8.6	25	9.1
700	31	3,098	2.5	-13.3	25	10.8
650	31	3,692	-.4	-17.0	25	12.9
600	31	4,320	-3.9	-20.4	25	14.5
550	31	5,010	-7.9	-25.3	25	16.9
500	31	5,744	-12.7	-29.0	25	17.7
450	31	6,539	-18.4	-33.1	25	19.9
400	31	7,408	-24.7	-38.0	25	22.0
350	31	8,360	-31.7	-42.9	25	23.8
300	31	9,437	-39.8	-45.2	25	27.1
250	30	10,660	-48.1		25	30.2
200	30	12,103	-55.9		25	30.4
175	30	12,947	-59.3		26	29.7
150	30	13,903	-62.8		26	28.5
125	30	15,014	-64.9		25	25.1
100	27	16,176	-65.9		25	18.9
80	25	17,738	-63.9		25	11.9
70	25	18,561	-62.2		26	8.6
60	25	19,517	-60.7		26	5.5
50	25	20,657	-58.5		25	3.5
40	24	21,972	-56.2		06	1.5
30	24	23,910	-52.4		11	2.4
25	23	25,097	-51.3		11	2.3
20	22	26,555	-48.8		11

RAWINSONDE DATA

Average monthly values

OCTOBER 1976

CARIBOU, ME — 984 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	194	1.7	-...	26	1.8
1000	26	184	9.8	4.3	05	1.3
950	31	538	2.4	-2.0	28	4.1
900	31	934	.5	-3.4	27	6.2
850	31	1,341	-1.5	-6.8	27	8.0
800	31	1,893	-2.9	-9.1	27	9.4
750	31	2,463	-4.9	-12.0	28	10.8
700	31	2,944	-6.6	-15.6	26	12.6
650	31	3,540	-9.5	-19.5	26	14.9
600	31	4,135	-12.7	-22.1	26	16.3
550	31	4,881	-16.2	-26.9	26	19.0
500	29	5,512	-20.6	-32.0	26	21.9
450	29	6,285	-25.4	-36.2	25	24.7
400	29	7,130	-30.8	-41.7	25	27.2
350	29	8,068	-37.3	-45.7	26	28.9
300	29	9,...4	-44.4	-49.7	26	30.7
250	28	10,310	-50.7		24	33.3
200	28	11,750	-54.7		25	32.1
175	28	12,602	-55.3		24	31.5
150	28	13,585	-56.1		24	30.3
125	27	14,746	-57.0		25	29.5
100	27	16,158	-57.2		25	28.6
90	24	17,573	-57.1		25	26.1
70	24	18,...	-56.6		25	12.6
60	24	19,399	-56.0		25	12.3
50	23	20,563	-56.2		25	11.3
40	24	21,984	-55.1		25	12.4
30	23	23,831	-53.7		26	12.8
25	21	25,...	-53.1		24	13.5
20	20	26,437	-52.7		24	16.4
15	19	28,294	-51.2		27	19.0
10						
7						

CENTREVILLE, AL — ...07 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	140	9.7	6.7	02	1.0
1000	26	184	9.8	4.3	05	1.3
950	31	585	12.4	5.3	11	.7
900	31	1,037	10.5	3.2	15	.8
850	31	1,512	9.0	-3.1	28	3.0
800	31	2,013	7.2	-6.3	28	4.7
750	31	2,542	5.7	-10.3	28	6.2
700	31	3,104	3.1	-14.5	27	7.6
650	31	3,702	.3	-16.7	27	9.5
600	31	4,339	-3.2	-20.1	27	11.3
550	31	5,022	-7.6	-23.8	27	12.9
500	29	5,757	-12.4	-28.2	27	14.6
450	29	6,554	-17.7	-32.4	26	17.6
400	29	7,424	-24.1	-37.7	26	19.9
350	29	8,387	-31.4	-43.2	26	23.2
300	29	9,458	-39.2	-48.0	26	26.8
250	28	10,685	-47.8		27	32.7
200	28	12,129	-56.2		27	39.1
175	28	12,969	-60.3		27	40.1
150	28	13,922	-63.8		27	36.6
125	27	15,030	-67.2		26	27.8
100	27	16,373	-67.5		26	21.2
90	24	17,722	-65.7		26	11.1
70	24	18,540	-63.3		26	8.3
60	24	19,491	-61.8		25	5.4
50	23	20,829	-59.0		25	3.6
40	24	22,036	-56.8		26	.6
30	23	23,868	-53.8		08	1.3
25	21	25,045	-51.4		11	1.1
20	20	26,503	-49.0		12	1.5
15	19	28,399	-47.7		18	.4
10		31,102	-44.7		24	1.7
7		33,546	-39.6			

CHARLESTON, SC — 1016 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	13	12.0	9.4	36	1.3
1000	31	148	14.6	10.0	03	2.0
950	31	583	13.5	6.5	03	1.6
900	31	1,037	11.5	3.6	28	1.6
850	31	1,513	9.8	.1	27	3.3
800	31	2,016	7.9	-4.7	25	3.9
750	31	2,546	6.1	-9.4	25	5.5
700	31	3,109	3.7	-11.4	25	6.9
650	31	3,708	.7	-14.6	25	8.7
600	31	4,346	-3.1	-19.1	25	10.5
550	31	5,030	-7.1	-22.2	25	11.1
500	31	5,767	-11.8	-27.1	25	12.7
450	31	6,565	-17.3	-31.6	25	15.1
400	31	7,437	-23.7	-36..	26	17.4
350	31	8,402	-30.7	-42.0	26	20.2
300	31	9,476	-38.6	-49.1	26	23.2
250	31	10,706	-47.1		26	27.4
200	31	12,154	-56.1		26	29.6
175	31	12,996	-59.6		26	29.4
150	31	13,961	-63.4		26	26.7
125	31	15,042	-66.8		26	23.6
100	31	16,405	-67.7		26	15.8
90	30	17,754	-65.4		26	10.5
70	30	18,570	-63.6		25	6.5
60	30	19,521	-61.7		24	3.9
50	30	20,658	-59.3		23	1.1
40	29	22,067	-56.1		07	1.4
30	29	23,909	-52.9		07	2.4
25	27	25,095	-50.6		11	2.1
20	27	26,557	-48.7		09	1.1
15	24	28,464	-46.2		05	1.3
10	16	31,168	-43.6			
7						

CHATHAM, MA — 1014 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	16	9.9	6.5	30	1.1
1000	29	141	10.2	5.1	32	1.7
950	31	536	8.0	3.0	28	3.5
900	31	1,001	5.8	.4	26	4.7
850	31	1,488	4.6	-4.4	26	7.2
800	31	1,961	2.8	-6.8	26	9.8
750	31	2,481	.3	-9.0	26	12.1
700	31	3,032	-2.0	-12.7	25	13.4
650	31	3,619	-4.3	-16.8	25	14.7
600	31	4,248	-7.8	-19.1	25	16.9
550	31	4,918	-11.5	-23.5	25	19.7
500	31	5,642	-16.0	-28.6	25	21.3
450	31	6,428	-21.3	-32.1	25	23.1
400	31	7,286	-27.6	-38.2	25	24.3
350	31	8,237	-34.2	-42.5	25	27.5
300	31	9,295	-42.0	-46.3	25	30.7
250	31	10,509	-49.4		25	32.2
200	31	11,948	-56.0		25	32.7
175	31	12,793	-58.1		25	30.5
150	31	13,761	-59.2		25	28.4
125	31	14,898	-61.1		25	24.9
100	31	16,283	-61.1		25	20.2
90	31	17,672	-60.0		25	15.1
70	31	18,509	-58.9		25	13.4
60	30	19,481	-58.0		25	11.3
50	30	20,639	-57.0		26	9.9
40	27	22,057	-55.2		26	8.9
30	27	23,904	-52.9		26	8.3
25	26	25,084	-51.8		26	8.7
20	25	26,535	-50.6		26	9.8
15	20	28,423	-48.4		24	12.2
10	6	31,140	-45.2			

CHIHUAHUA, MEXICO — 859 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	1,428	9.1	6.0	23	.3
1000						
950						
900						
850	31	1,514	11.2	4.2	23	.4
800	31	2,023	11.1	2.1	25	.8
750	31	2,559	8.0	-.6	24	2.0
700	31	3,125	5.0	-4.8	24	4.2
650	31	3,727	1.7	-9.5	24	5.9
600	31	4,368	-1.7	-16.0	25	6.5
550	31	5,056	-5.5	-21.5	26	8.0
500	31	5,797	-10.1	-25.8	26	10.2
450	31	6,601	-15.0	-31.8	26	12.0
400	31	7,478	-22.1	-37.0	26	15.3
350	31	8,450	-29.1	-43.0	26	17.8
300	31	9,531	-37.1	-49.6	26	20.6
250	31	10,768	-45.7		27	23.7
200	31	12,223	-55.3		27	24.8
175	31	13,065	-60.5		26	24.7
150	30	14,013	-65.7		26	22.6
125	29	15,108	-69.6		27	18.9
100	28	16,427	-72.6		27	14.0
90	28	17,746	-70.0		28	8.3
70	28	18,546	-67.3		28	3.7
60	27	19,484	-64.3		27	.9
50	27	20,611	-60.6		19	1.4
40	26	22,005	-58.4		18	.8
30	26	23,835	-54.1		07	1.3
25	26	25,009	-52.2		06	1.4
20	26	26,458	-50.0		06	2.9
15	18	28,349	-48.9		06	.2
10						
7						

COLD BAY, AK — 997 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	26	30	3.5	.9	18	1.8
1000	16	67	4.3	.6	16	2.6
950	26	443	1.9	-1.3	17	3.0
900	26	857	-1.5	-3.9	19	3.3
850	26	1,309	-5.1	-6.7	19	3.6
800	26	1,783	-7.9	-12.2	19	3.6
750	26	2,283	-10.5	-17.9	21	3.6
700	26	2,809	-13.3	-21.1	23	3.8
650	26	3,370	-16.4	-24.1	23	4.1
600	26	3,968	-20.3	-28.8	24	4.8
550	26	4,606	-24.8	-33.0	25	5.6
500	26	5,294	-29.4	-38.1	25	5.3
450	26	6,038	-34.6	-4..3	26	6.1
400	26	6,852	-39.7	-46.9	26	7.1
350	26	7,756	-45.3		25	8.5
300	26	8,772	-50.0		24	8.5
250	26	9,957	-52.0		25	11.0
200	26	11,...	-50.1		26	9.8
175	27	12,283	-50.0		26	10.8
150	26	13,...	-50.1		25	10.7
125	26	14,491	-50.5		25	10.3
100	26	15,941	-51.8		25	10.1
90	24	17,396	-52.2		25	8.9
70	24	18,260	-52.4		25	8.1
60	23	19,255	-52.7		25	8.0
50	23	20,432	-53.1		25	7.3
40	23	21,870	-53.2		26	6.6
30	22	23,715	-53.6		26	6.9
25	22	24,888	-53.4		28	7.3
20	17	26,358	-52.3		29	8.0
15	15	28,234	-52.0		29	5.3
10						

DAYTON, OH — 983 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	299	4.8	2.2	29	.1
1000						
950	31	581	7.1	.4	24	2.4
900	31	1,025	5.5	-2.8	26	4.0
850	31	1,491	3.3	-5.1	27	4.8
800	31	1,981	1.1	-8.1	27	5.9
750	31	2,498	.5	-12.6	27	7.6
700	31	3,048	-2.6	-15.3	27	9.5
650	31	3,633	-5.2	-18.3	27	10.9
600	31	4,258	-8.7	-21.2	27	11.7
550	31	4,927	-12.5	-24.7	27	13.9
500	31	5,649	-17.4	-29.3	27	14.9
450	31	6,430	-22.6	-33.2	27	17.6
400	31	7,284	-29.0	-37.5	27	19.6
350	31	8,229	-35.9	-44.8	27	21.7
300	31	9,279	-43.8		26	24.3
250	31	10,481	-52.1		26	27.9
200	29	11,908	-56.8		27	29.1
175	29	12,754	-57.1		27	28.3
150	29	13,727	-58.4		26	27.0
125	29	14,868	-60.6		26	22.9
100	29	16,236	-60.8		26	18.3
90	28	17,647	-59.7		26	15.4
70	28	18,485	-58.6		26	13.7
60	28	19,455	-57.8		26	9.8
50	28	20,610	-56.5		26	9.8
40	27	22,033	-54.9		26	8.9
30	25	23,885	-52.5		25	8.8
25	25	25,076	-51.5		25	8.7
20	23	26,530	-49.7		23	7.1
15	18	28,443	-47.5		26	16.2
10	12	31,143	-46.1		26	10.9

DEL RIO, TX — 981 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	314	12.9	10.5	07	1.3
1000						
950	31	584	14.3	9.1	14	2.7
900	31	1,040	12.9	5.6	18	3.5
850	31	1,519	11.1	2.1	20	2.6
800	31	2,025	10.4	-1.9	25	2.4
750	31	2,561	8.3	-5.8	27	3.7
700	31	3,127	5.2	-9.7	27	5.3
650	31	3,729	1.5	-11.2	27	7.2
600	31	4,370	-2.1	-14.7	27	9.4
550	31	5,056	-6.0	-20.0	27	12.1
500	31	5,796	-10.4	-25.3	27	14.1
450	31	6,599	-15.9	-30.9	27	17.1
400	31	7,476	-22.3	-36.8	27	21.3
350	31	8,447	-29.2	-41.4	27	24.9
300	31	9,527	-37.4	-49.1	27	28.8
250	31	10,764	-45.8		27	34.3
200	31	12,218	-55.5		27	37.0
175	31	13,060	-60.3		26	37.0
150	31	14,009	-65.6		27	35.3
125	30	15,105	-69.8		27	28.8
100	26	16,428	-71.4		27	17.3
90	26	17,758	-69.3		27	8.2
70	26	18,562	-66.3		27	6.0
60	26	19,502	-63.6		25	3.3
50	26	20,632	-59.8		21	.3
40	26	22,036	-57.3		13	.9
30	25	23,867	-54.2		07	2.4
25	24	25,038	-51.8		07	2.5
20	22	26,495	-49.5		07	2.2
15	22	28,394	-47.0		32	1.5
10	10	31,125	-43.9			

DENVER, CO — 840 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	1,611	3.1	-3.8	20	1.2
1000						
950						
900						
850	30	2,009	6.4	-6.3	30	1.5
800	30	2,537	4.2	-9.1	31	3.3
750	30	3,095	.5	-11.9	31	4.9
700	30	3,686	-3.0	-15.7	31	5.9
650	30	4,315	-7.3	-20.0	31	6.5
600	30	4,987	-11.8	-25.4	30	7.3
550	30	5,709	-17.1	-29.7	30	8.0
500	30	6,491	-23.0	-35.3	30	8.7
450	30	7,343	-29.2	-41.0	30	10.7
400	30	8,286	-36.1	-46.1	30	12.8
350	30	9,335	-44.5		30	14.3
300	30	10,533	-52.9		30	15.9
250	29	11,956	-57.9		29	18.6
200	29	13,763	-58.3		28	20.3
175	29	14,763	-60.2		28	19.2
150	29	14,896	-62.0		28	16.0
125	29	16,284	-64.3		28	13.3
100	27	16,270	-63.3		28	11.3
90	27	17,646	-63.0		29	9.5
70	27	18,475	-61.8		29	7.2
60	26	19,434	-61.3		29	6.8
50	25	20,568	-60.1		28	4.8
40	23	21,972	-58.6		28	5.9
30	20	23,796	-55.6		27	7.5
25	20	24,961	-54.1		27	8.7
20	20	26,400	-52.4		26	10.4
15	16	28,294	-49.7		26	13.1
10	9	31,046	-45.2			

DODGE CITY, KS — 927 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	791	5.2	.9	31	.2
1000						
950						
900	31	1,035	8.7	-.8	36	.2
850	31	1,507	8.2	-3.1	33	1.1
800	31	2,006	6.3	-5.3	32	2.4
750	31	2,533	4.0	-9.0	31	3.6
700	31	3,092	1.0	-13.0	31	4.9
650	31	3,683	-2.0	-15.7	31	5.4
600	31	4,314	-6.7	-19.4	30	6.3
550	31	4,987	-11.1	-25.1	29	7.0
500	31	5,712	-16.1	-30.6	29	8.1
450	31	6,497	-21.8	-36.3	29	10.1
400	31	7,352	-28.6	-41.3	28	11.6
350	31	8,297	-35.9	-46.6	28	13.6
300	31	9,347	-44.0	-50.1	28	16.3
250	28	10,550	-51.7		28	20.9
200	28	11,956	-56.8		27	24.6
175	28	12,821	-58.6		28	24.7
150	28	13,786	-60.4		28	21.4
125	28	14,916	-62.9		28	18.8
100	28	16,284	-64.3		28	15.7
90	28	17,652	-63.4		28	10.0
70	28	18,476	-62.2		28	7.8
60	28	19,431	-60.7		28	6.6
50	28	20,569	-59.6		27	6.3
40	26	21,970	-57.6		26	7.9
30	26	23,804	-54.6		26	8.6
25	26	24,981	-53.2		26	10.0
20	25	26,424	-51.4		25	10.5
15	25	28,300	-49.9		25	13.6
10	19	30,965	-46.9		26	21.4

EL PASO, TX — 884 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	1,193	9.0	2.7	36	1.2
1000						
950						
900						
850	31	1,516	11.2	.3	01	.5
800	31	2,...	9.0	-1.7	24	.8
750	31	2,552	6.1	-4.4	25	2.0
700	31	3,115	3.2	-8.9	25	2.7
650	31	3,711	-.6	-12.8	26	3.2
600	31	4,346	-4.4	-19.2	26	5.0
550	31	5,027	-8.4	-24.2	27	7.4
500	31	5,755	-13.2	-26.2	26	9.4
450	31	6,553	-18.9	-33.6	27	11.8
400	29	7,425	-24.6	-39.1	27	13.9
350	28	8,388	-31.7	-45.4	26	17.4
300	28	9,457	-39.6	-50.3	26	20.4
250	28	10,684	-47.6		27	24.1
200	28	12,130	-55.8		27	27.6
175	27	12,973	-59.6		27	28.7
150	27	13,928	-63.3		27	28.0
125	27	15,039	-67.1		27	21.4
100	24	16,370	-68.9		28	14.7
90	24	17,711	-68.2		28	7.9
70	23	18,517	-65.4		28	5.1
60	21	19,469	-63.3		29	1.9
50	20	20,601	-60.1		25	2.7
40	19	22,008	-57.6		24	2.5
30	17	23,840	-54.2		31	1.2
25	14	25,020	-52.7		29	2.3
20	14	26,469	-50.4		26	2.3
15	11	28,347	-48.3		26	4.8
10						
7						

ELY, NV — 812 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	1,908	-.6	-7.6	19	2.8
1000						
950						
900						
850	31	2,030	5.6	-4.4	19	1.8
800	31	2,559	5.6	-7.3	32	1.1
750	31	3,120	2.4	-12.2	32	2.7
700	31	3,716	-1.0	-15.8	31	3.6
650	31	4,349	-5.1	-19.3	31	4.8
600	31	5,027	-9.6	-23.9	32	5.5
550	31	5,756	-14.5	-30.4	32	6.3
500	31	6,546	-20.3	-34.1	32	6.6
450	30	7,407	-26.8	-39.2	32	7.2
400	30	8,359	-34.3	-45.6	32	8.2
350	30	9,415	-42.6	-49.3	32	9.0
300	30	10,622	-51.5		32	10.6
250	29	12,048	-58.6		31	12.8
200	29	12,884	-60.1		30	14.1
175	29	13,843	-61.6		30	14.4
150	29	14,966	-63.7		29	13.5
125	29	16,328	-64.8		30	10.4
100	28	17,691	-64.4		30	7.9
90	28	18,510	-63.0		30	6.4
70	28	19,461	-62.3		31	5.9
60	28	20,586	-61.1		31	4.2
50	28	21,973	-59.3		30	4.6
40	27	23,784	-56.7		28	5.2
30	27	24,948	-54.7		27	7.4
25	27	26,362	-53.1		27	9.1
20	26	28,488	-50.3		26	12.2

EMPALME, MEXICO — 1011 MB

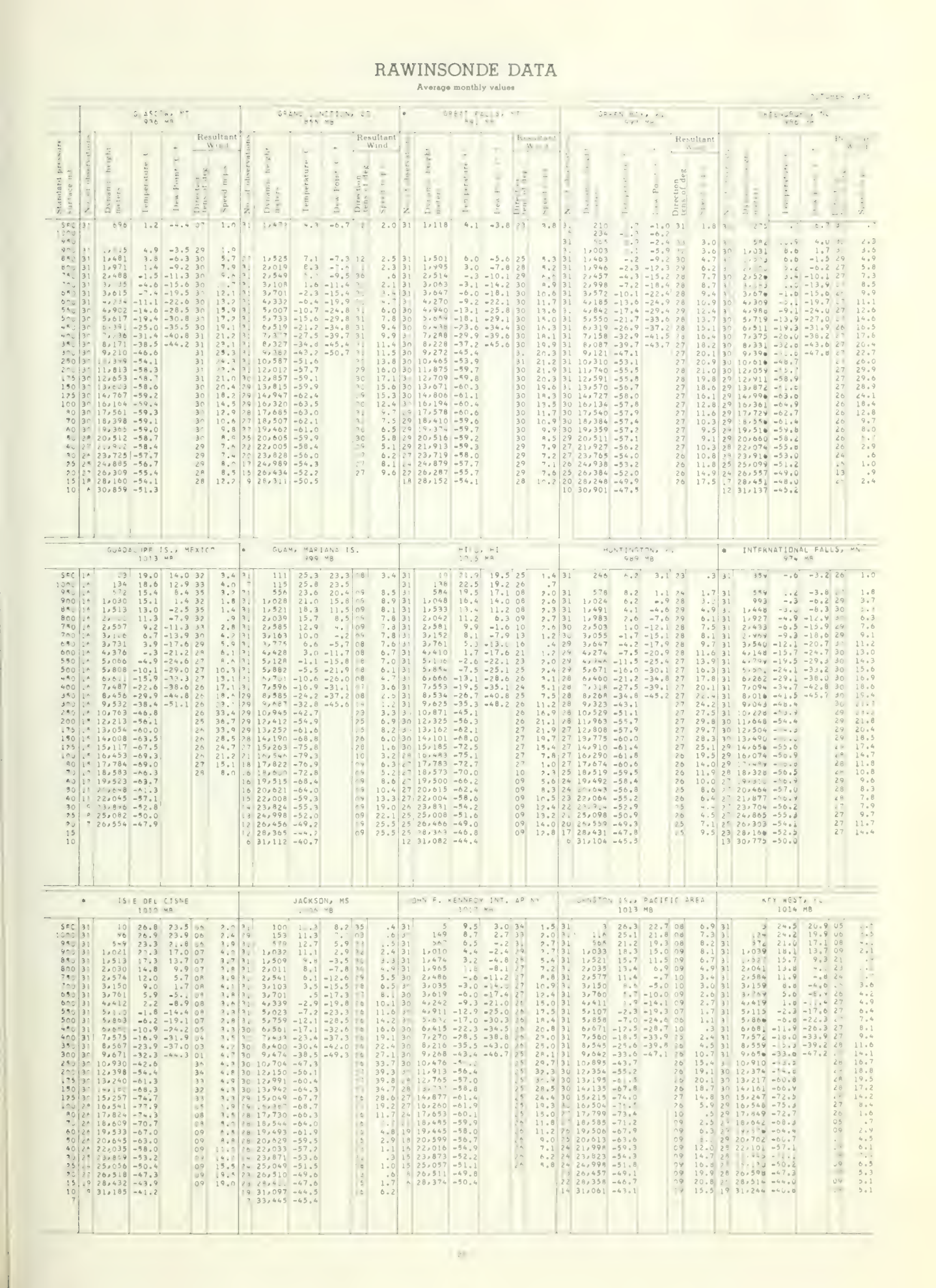
Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	12	19.4	13.9	03	1.3
1000	31	105	22.8	14.4	02	1.7
950	31	553	22.8	9.7	36	2.0
900	31	1,022	20.0	6.9	34	.4
850	31	1,511	16.2	4.8	17	1.4
800	31	2,024	12.5	.9	17	2.3
750	31	2,563	10.0	-6.8	20	2.5
700	31	3,133	7.0	-10.9	23	2.8
650	31	3,739	4.0	-15.5	25	4.5
600	31	4,365	.7	-19.1	26	6.6
550	31	5,078	-3.6	-22.7	27	8.6
500	31	5,824	-8.8	-27.1	27	11.3
450	31	6,631	-14.6	-31.8	27	13.3
400	31	7,512	-21.2	-36.4	27	15.2
350	31	8,487	-28.3	-41.5	27	19.0
300	31	9,571	-36.2	-48.6	27	22.3
250	31	10,813	-44.9		27	27.4
200	31	12,273	-54.7		26	29.8
175	31	13,117	-59.8		26	28.3
150	31	14,068	-64.7		26	24.2
125	31	15,172	-69.1		27	22.4
100	30	16,496	-71.4		27	15.4
90	30	17,816	-68.7		28	7.8
70	30	18,621	-66.4		30	4.1
60	30	19,562	-63.0		31	1.0
50	30	20,692	-59.9		22	1.8
40	28	22,097	-56.8		11	1.9
30	27	23,934	-53.1		06	1.4
25	27	25,116	-50.7		07	2.7
20	24	26,577	-48.8		08	3.1
15	18	28,488	-46.7		14	1.3

FAIRBANKS, AK — 991 MB

Standard pressure surface	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	31	135	-5.2	-8.5	35	.8
1000	7	163	-4.2	-5.3		
950	31	471	-2.8	-7.3	09	1.3
900	31	899	-4.1	-8.8	15	1.6
850	31	1,348	-6.1	-10.8	19	2.4
800	31	1,821	-8.4	-12.8	21	3.6
750	31	2,319	-11.1	-16.2	21	5.4
700	31	2,846	-14.2	-20.1	21	6.9
650	31	3,405	-17.6	-23.8	22	8.1
600	31	3,999	-21.4	-27.9	22	8.6
550	31	4,635	-25.7	-32.5	23	9.8
500	31	5,319	-30.6	-37.7	23

RAWINSONDE DATA

Average monthly values



RAWINSONDE DATA

Average monthly values

OCTOBER 1976

KING SALMON, AK — 1002 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	24	5	-.7	-2.5	09	2.2
1000	15	83	3.4	-.1	11	2.7
950	24	445	.6	-3.4	12	3.4
900	24	877	-2.2	-5.4	15	3.2
850	24	1,329	-5.2	-8.8	17	3.2
800	24	1,803	-8.0	-12.4	18	3.4
750	24	2,302	-10.7	-16.0	17	4.2
700	24	2,830	-13.5	-19.6	19	4.6
650	24	3,391	-16.6	-22.7	19	4.8
600	24	3,988	-20.2	-25.7	20	4.9
550	24	4,628	-24.4	-31.3	21	5.8
500	24	5,316	-28.8	-36.1	21	7.3
450	24	6,063	-33.7	-41.5	21	8.5
400	24	6,879	-39.4	-44.9	21	9.8
350	24	7,785	-45.1		22	11.5
300	24	8,798	-50.5		22	12.3
250	24	9,981	-52.5		22	13.0
200	24	11,429	-50.8		23	11.4
175	24	12,299	-50.2		23	11.6
150	24	13,306	-50.7		24	10.7
125	24	14,496	-50.8		24	10.6
100	24	15,945	-51.6		24	10.0
80	24	17,392	-52.0		24	9.8
70	25	18,251	-52.6		24	10.3
60	25	19,245	-53.3		25	9.9
50	25	20,417	-54.1		25	9.7
40	25	21,890	-54.2		26	8.3
30	24	23,695	-54.8		27	8.3
25	23	24,861	-54.4		28	8.9
20	20	26,286	-53.5		29	9.9
15	10	28,212	-53.2			
10						

KOROR, CAROLINE IS. — 1007 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	30	27.6	24.7	07	2.3
1000	31	94	26.5	23.8	07	2.6
950	31	547	23.7	21.5	08	3.9
900	31	1,020	20.7	18.0	08	4.6
850	31	1,513	17.8	14.6	08	4.7
800	31	2,031	15.4	11.0	08	5.0
750	31	2,577	12.7	7.0	08	5.2
700	31	3,155	9.7	1.9	08	5.1
650	31	3,767	6.4	-1.6	08	5.8
600	31	4,420	2.7	-5.9	08	6.2
550	31	5,119	-1.2	-11.9	09	6.5
500	31	5,874	-5.3	-17.0	09	6.4
450	31	6,694	-9.9	-21.5	09	5.8
400	31	7,594	-15.6	-28.1	09	5.5
350	31	8,592	-22.1	-35.3	08	4.2
300	31	9,704	-30.5	-43.2	08	3.3
250	31	10,971	-41.0	-49.6	11	2.7
200	30	12,448	-53.6		12	2.5
175	30	13,293	-60.4		10	2.2
150	30	14,237	-67.8		11	2.3
125	30	15,315	-74.8		10	2.3
100	29	16,591	-79.3		08	4.5
80	29	17,867	-75.2		07	3.0
70	29	18,650	-70.9		08	2.4
60	29	19,571	-67.3		06	1.0
50	26	20,683	-62.8		08	4.0
40	26	22,068	-59.9		09	10.9
30	24	23,890	-54.8		09	24.8
25	23	25,064	-51.5		09	29.6
20	22	26,526	-48.2		09	31.1
15	21	28,444	-43.4		09	29.5
10	12	31,244	-37.2			

KOTZEBUE, AK — 1008 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	30	5	-4.0	-6.8	04	3.8
1000	26	84	-3.6	-7.5	04	3.3
950	30	475	-5.5	-9.4	07	2.6
900	30	898	-7.7	-11.1	06	1.0
850	30	1,341	-9.1	-13.9	18	.0
800	30	1,809	-11.5	-17.5	28	1.1
750	30	2,301	-14.2	-21.4	27	1.7
700	30	2,821	-17.1	-25.7	27	2.2
650	30	3,374	-20.0	-28.9	27	2.3
600	30	3,964	-23.6	-32.8	27	2.5
550	30	4,599	-27.7	-36.5	28	3.5
500	30	5,274	-32.2	-40.6	28	4.1
450	30	6,009	-37.5	-44.2	28	3.9
400	30	6,812	-43.0	-48.7	27	3.7
350	30	7,704	-48.6		28	3.6
300	30	8,703	-53.8		27	4.8
250	30	9,868	-55.3		28	5.7
200	30	11,300	-52.8		27	6.5
175	30	12,164	-52.3		27	6.9
150	30	13,161	-52.1		27	7.0
125	30	14,341	-52.4		27	7.5
100	30	15,784	-52.6		27	9.0
80	30	17,223	-53.3		27	9.7
70	30	18,083	-53.7		27	10.6
60	30	19,073	-54.3		27	11.6
50	30	20,239	-54.9		27	12.7
40	29	21,668	-55.3		28	14.4
30	24	23,509	-55.5		29	16.0
25	22	24,660	-55.5		29	16.4
20	19	26,083	-55.6		30	23.1
15	17	27,937	-55.6		30	22.8

LAKE CHARLES, LA — 1018 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	5	11.3	8.2	03	1.8
1000	31	153	14.5	8.9	04	2.5
950	31	585	13.2	5.1	05	2.2
900	31	1,040	12.5	.3	35	.5
850	31	1,518	11.2	-5.3	31	1.4
800	31	2,023	9.4	-7.7	30	2.1
750	31	2,556	7.3	-9.9	29	3.3
700	31	3,121	4.5	-12.2	28	4.9
650	31	3,722	1.8	-15.0	27	6.7
600	31	4,363	-1.7	-17.8	27	8.3
550	31	5,050	-6.1	-21.5	27	11.4
500	31	5,789	-10.6	-26.5	26	14.1
450	31	6,592	-16.1	-30.6	26	16.4
400	31	7,467	-22.6	-35.5	26	18.9
350	31	8,437	-29.5	-41.8	26	22.4
300	31	9,517	-37.0	-48.4	26	28.4
250	31	10,754	-46.3		26	33.3
200	31	12,205	-56.0		27	37.0
175	31	13,044	-60.9		27	35.3
150	31	13,992	-65.8		27	33.1
125	31	15,089	-69.5		27	26.1
100	31	16,411	-71.2		27	17.6
80	31	17,617	-68.1		27	9.0
70	31	18,556	-65.7		26	5.9
60	31	19,502	-62.7		21	1.9
50	31	20,635	-59.5		23	1.8
40	31	22,040	-56.8		10	1.0
30	26	23,880	-53.6		08	2.6
25	23	24,907	-55.0		07	2.3
20	21	26,343	-53.9		27	2.5
15	15	28,245	-51.5		27	1.0
10						

LANDER, WY — 831 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	1,697	2.2	-5.0	19	1.0
1000						
950						
900	31	2,009	5.6	-6.3	23	.4
850	31	2,535	3.3	-8.8	30	1.7
800	31	3,091	.2	-12.0	30	4.4
750	31	3,682	-3.3	-16.1	31	6.8
700	31	4,311	-7.3	-20.7	31	8.4
650	31	4,983	-11.6	-24.9	31	9.2
600	31	5,705	-17.1	-29.5	32	10.7
550	31	6,487	-22.9	-34.9	31	11.7
500	31	7,339	-29.3	-41.6	32	14.2
450	31	8,281	-36.8	-46.6	31	15.4
400	31	9,327	-44.9		31	17.4
350	31	10,524	-53.1		31	18.3
300	30	11,931	-59.5		30	19.4
250	30	12,766	-59.5		30	19.6
200	30	13,728	-60.8		30	17.7
175	29	14,860	-61.8		29	16.8
150	29	16,238	-63.0		29	14.4
125	29	17,617	-61.7		29	11.5
100	29	18,445	-61.4		29	10.4
80	29	19,404	-60.5		29	7.9
70	28	20,537	-60.4		29	7.2
60	27	21,933	-59.6		28	6.2
50	25	23,744	-57.3		27	6.8
40	23	24,907	-55.6		27	8.3
30	21	26,343	-53.9		27	10.6
25	15	28,245	-51.5		27	12.8

LIHUE KAUAI, HI — 1012 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	36	23.3	19.8	05	2.4
1000	31	145	23.4	19.1	06	3.5
950	31	592	19.9	17.2	07	5.0
900	31	1,057	16.5	13.5	07	5.3
850	31	1,542	13.7	8.6	08	4.9
800	31	2,051	11.5	3.5	08	3.2
750	31	2,590	10.7	-4.5	09	1.6
700	31	3,162	7.9	-9.1	13	.6
650	31	3,770	4.9	-14.2	20	.5
600	31	4,418	1.3	-18.5	22	1.2
550	31	5,113	-3.1	-21.2	22	1.9
500	31	5,861	-7.8	-25.5	23	2.2
450	31	6,672	-13.3	-30.0	24	2.4
400	31	7,557	-19.9	-35.8	26	3.7
350	31	8,535	-27.7	-42.9	26	6.1
300	31	9,622	-36.1	-49.8	26	8.6
250	31	10,862	-45.9		27	12.8
200	31	12,312	-56.0		27	16.1
175	31	13,152	-61.2		27	17.6
150	30	14,095	-66.3		27	16.6
125	30	15,186	-71.0		27	12.9
100	30	16,495	-73.5		27	8.7
80	30	17,863	-72.0		28	3.1
70	28	18,557	-68.6		27	.7
60	28	19,528	-65.7		09	4.0
50	27	20,644	-62.4		09	7.0
40	27	22,035	-58.2		09	8.7
30	24	23,869	-53.7		09	9.6
25	24	25,045	-51.9		09	10.3
20	23	26,496	-49.5		09	10.5
15	21	28,397	-46.4		09	8.4
10	17	31,096	-45.1		09	4.9

LITTLE ROCK, AR — 999 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	79	10.2	5.8	34	1.5
1000	14	203	8.4	2.5	01	2.6
950	31	595	11.7	2.7	34	1.3
900	31	1,045	9.4	-.4	31	2.5
850	31	1,518	8.0	-5.4	31	3.9
800	31	2,017	5.2	-7.4	30	4.3
750	31	2,544	3.8	-12.2	29	5.3
700	31	3,101	1.3	-13.1	28	6.6
650	31	3,694	-1.9	-16.0	28	7.7
600	31	4,327	-5.4	-18.7	28	9.0
550	31	5,005	-9.5	-23.8	28	11.2
500	31	5,734	-14.5	-28.8	28	12.5
450	31	6,524	-19.8	-32.8	27	14.6
400	31	7,388	-25.9	-38.1	27	17.1
350	31	8,344	-32.9	-44.8	27	20.5
300	31	9,408	-41.1	-48.0	27	24.6
250	31	10,624	-49.6		26	29.7
200	31	12,061	-56.5		27	34.1
175	31	12,902	-59.6		27	34.2
150	30	13,859	-62.7		27	29.1
125	30	14,976	-65.0		27	24.4
100	30	16,329	-66.3		27	18.3
80	29	17,689	-64.4		27	10.1
70	28	18,597	-62.2		26	8.9
60	26	19,471	-60.3		26	7.0
50	24	20,616	-57.9		26	5.5
40	24	22,029	-56.0		26	4.4
30	24	23,871	-53.1		26	1.0
25	23	25,050	-51.9		28	1.1
20	21	26,507	-50.0		28	1.5
15	21	28,400	-47.2		25	2.8
10	18	31,119	-44.1		27	4.9

LONGVIEW, TX — 1005 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	124	10.7	9.0	23	.2
1000	27	176	11.8	6.8	13	.3
950	31	599	12.7	5.4	18	.7
900	31	1,052	10.7	2.9	29	.6
850	31	1,528	9.9	-2.2	31	2.3
800	31	2,030	7.9	-5.6	31	3.3
750	31	2,560	5.8	-7.9	30	4.3
700	31	3,122	3.0	-11.6	28	5.5
650	31	3,719	.2	-13.4	28	7.0
600	31	4,357	-3.6	-17.8	28	8.8
550	31	5,039	-7.7	-22.2	28	11.3
500	31	5,773	-12.9	-25.6	27	13.9
450	31	6,569	-18.0	-31.5	27	16.1
400	31	7,439	-24.4	-36.6	26	19.0
350	31	8,401	-31.3	-42.8	26	22.4
300	31	9,473	-38.8	-49.0	26	27.6
250	31	10,701	-47.6		26	32.9
200	31	12,147	-56.0		27	37.5
175	31	12,988	-59.8		27	34.3
150	31	13,943	-63.5		27	32.2
125	31	15,053	-67.1		27	25.9
100	31	16,390	-68.5		27	19.3
80	31	17,739	-66.3		27	9.9
70	29	18,553	-64.0		27	7.0
60	27	19,502	-61.7		25	5.5
50	27	20,640	-58.9		26	3.1
40	27	22,050	-56.7		25	2.1
30	23	23,889	-53.3		26	.1
25	23	25,067	-51.9		27	.2
20	23	26,523	-49.2		05	.6
15	22	28,424	-47.0		26	2.6
10	15	31,110	-44.6		28	4.7

MCGRATH, AK — 994 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	103	-6.3	-8.5	33	.7
1000	8	146	-1.8	-4.1		
950	31	463	-3.7	-6.9	07	1.6
900	31	889	-5.1	-8.5	12	1.6
850	31	1,336	-7.5	-10.6	16	1.7
800	31	1,804	-9.8	-14.6	19	2.3
750	31	2,303	-12.2	-18.5	20	3.6
700	31	2,827	-15.2	-22.2	20	5.2
650	31	3,384	-18.6	-25.2	20	4.8
600	31	3,976	-22.2	-29.4	20	5.2
550	31	4,610	-26.5	-33.1	21	6.2
500	31	5,292	-31.1	-38.4	21	6.6
450	31	6,031	-36.1	-43.4	21	7.3
400	31	6,840	-41.5	-46.2	21	9.1
350	31	7,738	-46.8		21	9.6
300	31	8,747	-51.6		22	10.4
250	31	9,921	-54.2		23	9.9
200	31	11,359	-52.0		23	8.0
175	31	12,225	-51.7		24	9.1
150	31	13,226	-51.3		24	9.1
125	31	14,409	-51.7		25	8.8
100	31	15,855	-52.2		25	9.2
80	31	17,296	-52.8		26	9.3
70	29	18,154	-53.1		26	8.9
60	29	19,141	-53.9		26	9.8
50	27	20,311	-54.3		27	11.2
40	26	21,738	-54.8		28	12.3
30	25	23,578	-55.0		29	14.0
25	24	24,740	-55.8		29	15.3
20	20	26,184	-54.9		29	17.4
15	8	28,005	-55.7			
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MAJURO, MARSHALL IS. — 1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	3	28.8	24.6	08	3.7
1000	31	95	27.4	23.2	08	4.7
950	31	548	23.9	21.3	08	5.7
900	31	1,021	21.2	17.9	09	6.0
850	31	1,515	18.4	14.9	09	6.3
800	31	2,035	16.2	10.9	09	5.9
750	31	2,582	13.5	7.4	09	5.8
700	31	3,161	10.5	4.3	10	5.3
650	31	3,770	7.0	.9	09	5.0
600	31	4,430	3.3	-3.4	09	4.9
550	31	5,132	-.5	-10.1	09	4.0
500	31	5,889	-4.6	-13.4	09	3.5
450	31	6,711	-9.3	-20.5	10	2.9
400	31	7,613	-14.8	-25.5	07	1.4
350	31	8,614	-21.7	-32.0	10	.4
300	31	9,728	-29.8	-41.2	25	1.4
250	31	11,000	-40.4	-49.9	24	3.4
200	31	12,482	-52.7		25	5.0
175	31	13,331	-59.5		25	5.5
150	30	14,278	-67.3		26	5.5
125	30	15,357	-74.8		27	4.6
100	30	16,633	-79.3		29	2.1
80	30	17,917	-73.9		25	.5
70	28	18,704	-70.4		17	1.0
60	28	19,627	-67.0		14	1.4
50	27	20,736	-63.9		10	2.7
40	27	22,118	-59.3		09	10.1
30	24	23,940	-54.3		09	23.8
25	24	25,115	-51.7		09	28.2
20	23	26,577	-47.2		09	30.4
15	21	28,506	-41.9		09	29.0
10	5	31,316	-36.4			

MEDFORD, OR — 973 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	401	5.4	3.3	21	.2
1000						
950	31	595	10.5	4.3	24	.3
900	31	1,047	11.8	1.9	17	1.1
850	31	1,525	10.9	-2.6	18	1.7
800	31	2,029	8.8	-6.6	25	1.6
750	31	2,582	6.2	-9.6	27	2.7
700	31	3,122	3.4	-13.9	27	3.8
650	31	3,720	-.1	-16.8	28	4.7
600	31	4,355	-4.4	-20.4	28	5.9
550	31	5,035	-8.9	-24.4	29	6.8
500	31	5,766	-14.3	-30.0	28	7.6
450	31	6,556	-20.1	-32.8	28	8.6
400	31	7,418	-26.7	-40.2	28	9.6
350	31	8,370	-34.0	-45.6	28	10.9
300	31	9,428	-42.7	-49.0	29	11.7
250	31	10,633	-52.1		30	13.5
200	31	12,052	-59.4		29	15.7
175	31	12,884	-61.3		29	14.9
150	31	13,836	-62.6		28	14.6
125	31	14,959	-63.5		28	13.5
100	31	16,326	-64.2		29	10.7
80	31	17,694	-63.3		29	8.5
70	30	18,523	-62.1		30	6.9
60	30	19,478	-61.5		30	5.8
50	28	20,615	-60.7		31	4.4
40	28	22,007	-60.0		32	4.2
30	27	23,815	-57.8		30	5.0
25	27	24,969	-56.2		29	5.9
20	24	26,403	-54.2		29	6.3
15	23	28,265	-52.2		28	9.3
10	17	30,938	-49.2		27	14.8

MERIDA, MEXICO — 1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	11	20.9	20.3	05	.6
1000	31	119	23.4	20.8	07	2.4
950	31	568	21.6	18.0	08	3.9
900	31	1,035	18.8	14.2	06	2.5
850	31	1,525	15.8	10.3	04	1.4
800	31	2,039	13.7	6.8	29	.6
750	31	2,582	11.6	1.6	28	1.2
700	31	3,156	8.9	-3.9	26	1.5
650	31	3,767	5.8	-8.9	25	1.6
600	31	4,418	2.2	-13.2	26	1.5
550	31	5,115	-1.8	-17.6	28	2.0
500	31	5,867	-6.3	-22.1	27	2.8
450	31	6,684	-11.2	-27.3	26	3.4
400	31	7,578	-17.0	-32.8	27	4.9
350	31	8,569	-24.0	-38.9	27	5.4
300	31	9,673	-32.4	-46.8	27	7.0
250	31	10,930	-42.6		28	7.9
200	31	12,395	-54.4		27	8.7
175	31	13,238	-61.1		26	8.6
150	31	14,178	-68.5		27	8.0
125	31	15,253	-75.0		28	7.3
100	31	16,535	-78.2		28	4.6
80	31	17,821	-73.4		06	.9
70	30	18,610	-69.6		09	3.4
60	30	19,537	-66.1		10	4.8
50	28	20,653	-61.8		09	6.5
40	28	22,047	-57.8		09	7.4
30	27	23,882	-52.7		08	9.6
25	27	25,067	-50.4		08	10.9
20	24	26,528	-48.2		09	11.1
15	20	28,444	-45.1		09	10.5
10	12	31,165	-42.0			

MIAMI, FL — 1014 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	4	22.0	20.1	36	1.5
1000	31	129	22.8	20.1	04	2.0
950	31	576	20.4	17.7	08	3.3
900	31	1,042	17.6	14.0	10	2.4
850	31	1,529	15.0	10.6	13	1.0
800	31	2,042	13.2	6.0	25	1.0
750	31	2,583	11.0	2.2	26	2.8
700	31	3,157	8.2	-2.7	26	4.0
650	31	3,766	5.0	-6.9	26	5.3
600	31	4,414	1.3	-10.7	27	6.2
550	31	5,110	-2.7	-15.6	27	7.2
500	31	5,859	-7.3	-20.0	27	8.6
450	31	6,673	-12.5	-23.9	27	9.4
400	31	7,562	-18.6	-30.1	27	11.5
350	31	8,546	-25.1	-36.8	27	13.6
300	31	9,642	-34.2	-44.0	28	15.5
250	31	10,893	-43.7		28	18.7
200	31	12,355	-54.8		28	21.7
175	31	13,198	-60.6		28	22.0
150	31	14,144	-66.6		28	19.4
125	31	15,233	-71.8		28	16.8
100	30	16,538	-73.9		27	10.7
80	30	17,846	-71.4		26	3.5
70	30	18,644	-67.4		33	.4
60	30	19,580	-64.1		10	2.2
50	30	20,706	-60.5		10	3.1
40	28	22,111	-56.9		09	5.0
30	26	23,947	-52.4		08	6.2
25	26	25,131	-50.3		09	9.7
20	25	26,594	-47.5		08	4.4
15	24	28,509	-44.3		09	4.5
10	17	31,251	-41.8		08	3.6

MIDLAND, TX — 918 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	874	8.6	4.8	04	.3
1000						
950						
900	31	1,037	11.4	4.3	16	1.0
850	31	1,515	11.3	.4	21	.7
800	31	2,020	9.5

RAWINSONDE DATA

Average monthly values

OCTOBER 1979

MONETT, MO — 967 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
SFC	31	438	7.7	5.0	13	4.4
1000						
950	31	588	9.9	3.7	21	4.4
900	31	1,037	8.5	-.1	27	2.6
850	31	1,494	7.1	-4.7	29	4.7
800	31	1,955	5.2	-8.1	30	4.7
750	31	2,530	2.8	-9.3	30	6.3
700	31	3,086	-.3	-11.9	30	7.4
650	31	3,676	-3.1	-15.3	29	8.3
600	31	4,306	-6.6	-19.4	29	9.3
550	31	4,980	-10.6	-24.2	29	10.5
500	31	5,707	-15.5	-31.3	28	11.0
450	31	6,494	-21.1	-35.6	28	12.8
400	31	7,353	-27.2	-40.6	28	13.6
350	31	8,304	-34.5	-45.7	27	17.9
300	31	9,368	-42.4	-49.2	27	22.4
250	31	10,569	-50.6		27	24.9
200	30	12,000	-55.8		27	26.9
175	30	12,855	-58.4		27	30.0
150	30	13,860	-60.7		27	28.0
125	29	14,947	-63.2		27	21.9
100	28	16,360	-63.5		28	16.5
80	28	17,691	-62.5		27	11.9
70	28	18,518	-61.0		27	8.7
60	28	19,490	-59.9		27	7.7
50	28	20,664	-57.9		26	6.9
40	28	22,039	-55.7		25	7.4
30	28	23,884	-53.0		26	8.8
25	28	25,065	-51.4		26	8.6
20	28	26,520	-49.8		26	7.1
15	28	28,411	-47.8		25	9.5
10	17	31,088	-45.2		24	13.2

NASHVILLE, TN — 996 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
31	180	8.5	5.9	01	.6
10	240	6.4	-.4		
31	586	9.4	3.1	14	.4
31	1,034	7.8	.4	17	1.7
31	1,504	5.9	-2.7	28	3.1
31	1,999	4.7	-7.5	28	5.3
31	2,523	2.8	-10.7	28	6.5
31	3,079	.3	-14.6	27	7.6
31	3,670	-2.6	-17.0	27	8.8
31	4,301	-6.6	-20.8	27	10.5
31	4,977	-10.5	-25.4	26	12.2
31	5,704	-15.3	-30.4	26	14.4
31	6,492	-20.5	-34.2	26	16.0
31	7,352	-27.0	-40.0	26	18.3
31	8,304	-33.9	-44.4	26	21.3
30	9,368	-41.6	-46.9	26	24.9
30	10,582	-50.0		26	30.6
30	12,010	-56.6		27	33.7
30	12,859	-59.3		27	33.8
30	13,818	-61.7		27	30.1
29	14,941	-63.6		26	26.1
28	16,304	-64.2		26	19.1
28	17,675	-62.5		26	13.0
28	18,501	-61.3		26	10.4
28	19,462	-59.7		26	8.4
27	20,612	-57.8		26	6.1
27	22,026	-55.8		25	5.4
26	23,873	-53.5		24	2.2
26	25,050	-51.8		26	2.4
26	26,535	-49.8		23	2.7
20	28,429	-47.7		15	5.1
10	31,140	-44.3			

NOME, AK — 1007 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
22	5	-2.2	-6.6	02	3.6
19	75	.3	-3.8	04	3.8
22	469	-3.4	-7.2	04	4.0
22	895	-6.2	-9.1	04	3.1
22	1,340	-8.6	-13.0	05	2.7
22	1,808	-10.5	-17.5	04	2.6
22	2,303	-12.9	-21.5	03	2.6
22	2,827	-15.4	-24.9	03	3.3
22	3,383	-18.5	-27.2	02	3.5
22	3,976	-22.3	-30.5	02	3.4
22	4,611	-26.4	-35.0	02	3.6
22	5,293	-31.1	-39.7	01	4.3
22	6,032	-36.1	-43.9	02	4.6
22	6,840	-41.7	-49.5	01	4.2
22	7,736	-47.3		01	5.4
22	8,742	-52.4		35	4.7
22	9,912	-54.7		33	4.4
22	11,345	-52.9		31	4.6
22	12,210	-51.8		29	4.5
22	13,211	-51.5		29	4.2
22	14,395	-51.6		29	5.5
22	15,840	-52.2		29	6.7
22	17,284	-52.6		28	7.4
22	18,146	-52.7		29	8.1
22	19,141	-53.5		28	8.4
21	20,321	-54.0		29	10.5
22	21,765	-54.2		28	10.4
22	23,618	-54.3		29	12.6
17	26,785	-53.9		29	13.6
15	28,233	-53.8		30	14.7
5	28,148	-51.1			

NORTH PLATTE, NE — 921 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
30	847	1.6	-2.1	32	.8
30	1,035	5.9	-.5	31	1.3
30	1,505	4.8	-3.3	28	3.1
30	2,001	4.3	-6.0	29	4.0
30	2,524	.1	-10.1	30	5.5
30	3,078	-1.0	-12.2	30	6.4
30	3,666	-4.2	-15.6	30	9.0
30	4,293	-8.1	-19.5	30	10.4
30	4,963	-12.0	-24.	30	10.6
30	5,686	-16.2	-30.0	29	12.2
30	6,468	-22.8	-35.3	29	13.0
30	7,320	-29.6	-41.0	29	12.8
29	8,261	-36.8	-44.3	29	13.9
29	9,307	-45.0		29	14.6
29	10,503	-53.0		29	16.8
29	11,924	-57.4		29	18.8
29	12,766	-57.4		29	20.2
29	13,738	-59.2		29	18.7
28	14,877	-60.5		28	16.5
28	16,262	-61.8		28	13.9
29	17,646	-60.9		29	10.8
29	18,477	-60.3		29	9.4
29	19,440	-59.6		28	8.2
29	20,583	-59.1		28	7.4
29	21,986	-57.7		28	6.4
28	23,911	-55.3		26	7.8
28	26,478	-54.8		26	10.0
28	28,414	-52.3		26	12.0
28	28,288	-50.2		25	14.5
16	30,945	-48.3		26	20.8

OAKLAND, CA — 1017 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
31		13.4	10.9	28	.2
30	147	14.6	9.7	28	.4
31	582	10.5	6.3	34	.4
30	1,043	10.5	-2.9	30	1.1
30	1,527	4.5	-6.0	34	1.8
29	2,038	1.4	-7.4	33	1.9
29	2,573	8.4	-10.5	33	1.9
29	3,139	5.0	-13.6	33	2.
29	3,740	.0	-17.0	34	2.1
29	4,380	-4.3	-21.2	3	2.9
29	5,064	-7.1	-25.8	3	3.8
30	5,800	-12.6	-30.4	3	5.1
29	6,598	-20.3	-34.3	3	6.5
29	7,463	-28.1	-37.1	3	8.3
29	8,421	-36.8	-44.7	3	8.8
29	9,484	-41.5	-53.2	31	8.5
29	10,695	-52.9		31	10.6
29	12,121	-58.3		33	11.2
29	12,957	-60.8		27	11.8
29	13,910	-63.1		24	10.1
28	15,030	-65.3		24	10.3
29	16,388	-66.5		28	9.1
29	17,740	-65.6		3	8.9
26	18,555	-64.4		3	9.4
29	19,502	-62.7		3	9.1
29	20,631	-60.8		3	9.3
29	21,986	-57.7		3	8.7
25	22,020	-55.8		3	8.3
25	23,814	-56.5		29	8.7
26	26,394	-54.4		27	8.6
26	28,344	-50.4		27	8.1
23	28,304	-50.2		27	10.1
19	31,003	-47.1		27	15.6

OMAHA, NE — 971 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
SFC	31	403	4.9	.5	36	1.1
1000						
950	31	580	7.0	-1.3	32	1.3
900	31	1,025	6.6	-5.2	30	3.4
850	31	1,492	4.3	-6.1	31	5.4
800	31	1,984	2.5	-9.4	31	4.4
750	31	2,503	.2	-12.5	30	7.4
700	31	3,054	-2.5	-15.8	30	8.7
650	31	3,639	-4.8	-18.6	30	9.8
600	31	4,263	-8.9	-22.8	30	11.2
550	31	4,932	-12.9	-27.3	30	12.2
500	31	5,652	-17.7	-32.3	30	14.0
450	31	6,432	-23.0	-36.2	30	15.7
400	30	7,281	-29.8	-40.6	29	18.1
350	30	8,221	-37.1	-44.1	29	18.9
300	29	9,272	-45.1		28	20.0
250	28	10,470	-53.3		28	22.9
200	28	11,890	-57.4		28	24.8
175	28	12,734	-57.8		28	23.4
150	28	13,703	-59.2		28	21.4
125	28	14,844	-60.0		28	18.7
100	28	16,230	-61.1		28	15.3
80	28	17,618	-60.5		28	11.7
70	28	18,451	-60.0		28	9.7
60	28	19,415	-59.4		28	8.2
50	28	20,557	-58.6		27	8.1
40	24	21,963	-57.3		27	8.2
30	24	23,795	-54.8		26	9.6
25	22	24,957	-53.5		26	11.5
20	21	26,403	-51.9		26	14.4
15	21	28,275	-50.3		26	15.8
10	14	30,938	-47.7		26	18.1
7						

PAGO PAGO, AMERICAN SAMOA — 1012 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
31	5	28.9	23.6	10	4.6
31	113	26.3	22.4	10	5.0
31	365	22.7	20.0	09	5.5
31	1,035	19.3	16.9	09	5.4
31	1,526	16.6	12.8	08	5.1
31	2,042	13.1	6.8	08	3.9
31	2,587	12.7	.7	08	2.6
31	3,163	9.5	-5.2	26	1.5
31	3,774	5.2	-8.3	03	.7
31	4,426	2.4	-14.1	31	.8
31	5,124	-1.6	-18.2	30	1.1
31	5,877	-5.9	-22.9	29	4.1
31	6,694	-11.2	-27.2	27	5.9
31	7,586	-17.7	-33.9	27	7.7
31	8,574	-24.9	-40.0	27	10.1
31	9,673	-33.2	-46.5	26	14.0
31	10,929	-43.0		26	17.4
31	12,396	-54.1		26	18.7
30	13,240	-60.2		26	19.1
30	14,186	-66.9		26	18.6
30	15,288	-74.0		27	17.0
30	16,552	-77.8		27	11.7
30	17,835	-74.6		28	6.9
30	18,619	-70.8		28	4.2
30	19,542	-66.4		02	.6
29	20,663	-61.5		08	5.1
28	22,061	-57.2		09	9.0
28	23,895	-54.3		09	13.6
28	25,070	-51.9		09	14.7
28	26,532	-47.8		09	15.4
25	28,447	-44.0		09	13.2
21	31,203	-38.2		09	8.2

PEORIA, IL — 995 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
31	200	4.5	1.4	34	.6
6	235	1.4	-4.1		
31	581	7.7	-1.0	30	3.4
31	1,025	5.4	-2.7	31	4.1
31	1,490	3.0	-5.7	31	4.9
31	1,980	1.3	-9.9	30	6.3
31	2,497	-.8	-12.6	29	6.8
31	3,046	-3.1	-17.7	29	8.3
31	3,630	-5.9	-20.4	29	10.3
31	4,253	-9.1	-23.5	28	11.7
31	4,921	-13.3	-26.8	28	13.5
31	5,639	-18.3	-30.5	28	15.2
30	6,417	-23.4	-36.0	28	17.5
30	7,269	-29.5	-41.8	27	19.6
30	8,211	-36.6	-46.5	27	21.3
30	9,258	-44.5		27	23.3
30	10,458	-52.0		27	25.0
30	11,887	-56.5		27	27.2
30	12,732	-57.2		27	27.0
30	13,704	-58.9		27	24.3
30	14,845	-60.1		27	20.4
29	16,230	-60.6		27	16.3
28	17,624	-59.7		27	13.5
28	18,461	-58.8		27	10.7
28	19,431	-58.1		27	9.4
28	20,514	-57.5		26	9.2
27	21,996	-55.4		26	10.1
27	23,842	-52.6		26	11.4
25	25,030	-51.5		25	11.3
24	26,480	-50.4		25	13.5
22	28,361	-48.6		26	15.5
20	31,025	-47.3		25	21.3
13	33,363	-45.8		26	24.6

PITTSBURGH, PA — 979 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
31	359	5.2	.3	26	1.3
31	575	5.7	.4	26	2.9
31	1,017	4.6	-2.6	28	5.3
31	1,481	2.7	-4.9	29	6.6
31	1,971	.9	-7.5	28	7.6
31	2,486	-1.3	-12.4	28	8.2
31	3,033	-4.5	-17.5	28	10.0
30	3,616	-6.4	-19.3	28	11.6
30	4,239	-9.1	-22.4	27	14.4
30	4,907	-13.1	-25.8	27	16.8
30	5,627	-17.9	-30.1	27	19.0
30	6,407	-23.0	-35.3	27	19.0
30	7,259	-29.3	-41.7	26	21.5
30	8,202	-36.2	-46.9	26	24.2
30	9,252	-43.9	-47.3	26	27.5
30	10,455	-51.4		26	28.8
30	11,888	-56.0		26	30.3
28	12,737	-57.0		26	28.4
28	13,710	-58.7		26	26.5
28	14,852	-60.1		26	21.9
28	16,242	-60.2		26	18.8
27	17,639	-59.4		26	13.3
27	18,447	-58.7		26	12.0
26	19,443	-57.8		25	11.2
23	20,594	-56.0		26	9.8
21	22,022	-54.8		26	8.3
20	23,870	-53.1		26	8.2
19	25,050	-51.6		25	7.6
19	26,502	-50.4		25	8.8
16	28,387	-49.1		25	12.6
9	31,031	-47.1			

PONAPE, CAROLINE IS. — 1005 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
31	74	8.6	24.5	08	4.2
31	82	27.3	23.4	08	4.5
31	538	23.6	21.6	08	4.2
31	1,006	20.5	18.0	09	4.2
31	1,501	18.0	14.4	09	4.8
31	2,019	15.6	10.3	09	4.2
31	2,566	12.0	7.4	09	4.3
31	3,143	9.9	3.6	04	4.8
31	3,758	6.3	-.6	09	5.4
31	4,409	2.4	-3.8	09	5.2
31	5,108	-1.1	-8.8	07	4.6
31	5,864	-5.2	-13.4	09	4.2
31	6,684	-9.7	-16.3	09	3.7
31	7,584	-15.3	-26.1	08	2.5
31	8,583	-22.4	-34.7	09	1.3
31	9,696	-30.1	-42.5	20	.0
31	10,966	-40.7	-46.9	21	2.3
31	12,465	-53.2		27	2.5
31	13,291	-60.2		24	3.2
31	14,230	-68.0		23	2.8
31	15,310	-75.5		26	.9
31	16,582	-79.5		35	.5
31	17,861	-74.3		01	1.3
31	18,965	-70.9		11	1.3
31	19,569	-68.9		21	.9
30	20,676	-63.5		08	3.2
29	22,061	-59.5		09	11.3
28	23,884	-54.1		09	24.6
24	25,050	-51.9		09	28.5
23	26,509	-48.0		09	30.3
13	28,422	-43.3		09	30.5
13	31,187	-37.2		09	29.2

PORTLAND, ME — 1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
SFC	31	20	4.1	-.3	29	1.2
1000	28	145	5.9	.7	31	1.5
950	31	545	5.4	-.7	26	3.5
900	31	985	3.2	-3.6	27	5.0
850	31	1,447	1.7	-8.0	27	6.4
800	31	1,935	.5	-11.6	26	8.3
750	31	2,452	-1.3	-15.1	26	9.6
700	31	2,999	-3.8	-18.2	25	11.9
650	31	3,582	-6.7	-20.3	25	14.0
600	31	4,203	-10.1	-22.7	25	14.4
550	31	4,869	-13.7	-26.3	25	13.7
500	31	5,588	-17.7	-30.3	25	12.1
450	31	6,369	-22.8	-35.2	25	12.2
400	31	7,223	-28.7	-39.5	25	12.4
350	31	8,168	-35.6	-44.3	25	12.7
300	31	9,221	-42.7	-46.5	25	13.1
250	31	10,434	-49.5		25	13.9
200	31	11,875	-55.1		25	14.2
175	31	12,725	-56.6		25	14.3
150	31	13,701	-57.4		25	14.3
125	31	14,849	-58.9		25	13.8
100	31	16,248	-58.7		25	13.1
80	31	17,653	-58.0		25	12.8
70	31	18,496	-57.3		25	12.3
60	31	19,474	-56.2		26	12.3
50	29	20,637	-55.8		25	12.4
40	29	22,062	-54.3		25	11.6
30	29	23,914	-52.3		25	11.9
25	28	25,096	-51.5		26	12.4
20	28	26,547	-50.7		26	13.1
15	24	28,436	-48.8		26	14.9
10	22	31,118	-46.2		26	18.4

QUILLAYUTE, WA — 1012 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
31	58	7.6	6.6	12	.7
30	161	9.5	7.9	13	.9
31	584	9.7	3.3	18	2.6
31	1,032	7.7	.1	21	3.4
31	1,501	5.9	-4.4	23	3.8
31	1,997	4.5	-9.4	25	5.2
31	2,521	2.7	-11.5	26	6.7
31	3,076	.0	-15.3	26	7.9
31	3,667	-2.9	-17.5	26	9.1
31	4,296	-6.7	-21.1	26	10.8
31	4,970	-10.9	-24.5	27	13.0
31	5,696	-16.0	-28.9	27	14.3
31	6,480	-21.8	-32.2	26	15.6
31	7,337	-28.1	-38.3	27	16.9
31	8,284	-35.5	-45.2	27	18.2
31	9,335	-43.9		27	19.5
31	10,535	-53.1		28	20.5
31	11,947	-60.4		28	21.4
31	12,777	-61.2		28	20.5
31	13,736	-60.9		28	18.8
31	14,867	-61.6		28	18.0
29	16,247	-61.9		28	14.3
28	17,635	-61.2		28	11.5
28	18,467	-60.1		27	10.4
27	19,436	-59.7		29	9.2
27	20,577	-59.6		30	7.6
26	21,972	-59.5		30	6.9
26	23,777	-58.5		30	7.1
22	24,927	-57.7		29	6.9
19	26,346	-55.8		29	8.9
6	28,206	-54.1			

RAPID CITY, SD — 937 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
31	966	2.9	-4.1	33	1.9
29	1,038	4.1	-3.8	33	2.1
31	1,498	5.7	-4.8	31	4.3
31	1,993	3.7	-7.3	31	5.6
31	2,514	.6	-10.5	32	7.2
31	3,065	-2.4	-14.8	32	8.1
31	3,649	-5.7	-17.4	31	9.9
31	4,273	-9.1	-22.1	30	10.6
31	4,941	-13.4	-26.2	30	11.8
31	5,660	-18.4	-29.5	31	13.1
31	6,437	-24.2	-34.1	30	14.9
31	7,285	-30.7	-40.3	30	16.4
31	8,222	-37.9	-44.6	30	16.7
31	9,263	-46.0		31	16.7
31	10,454	-54.0		31	17.9
31	11,869	-58.4		30	20.4
31	12,708	-58.8		30	20.5
31	13,675	-59.4		30	19.3
31	14,815	-60.2		29	16.6
31	16,203	-60.9		30	14.4
31	17,587	-60.3		29	13.1
31	18,421	-59.6		29	11.4
31	19,385	-59.8		29	9.3
28	20,531	-59.2		29	7.6
28	21,931	-58.6		28	7.3
28	23,746	-56.9		28	7.9
27	24,898	-56.0		27	8.4
24	26,333	-54.3		27	10.3
16	28,189	-52.2		27	13.6

ST CLOUD, MN — 982 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
31	316	.2	-3.3	32	.8
31	581	3.1	-3.0	30	1.8
31	1,020	2.4	-4.7	30	3.8
31	1,480	.3	-8.6	30	5.4
31	1,965	-2.1	-11.5	30	6.7
31	2,476	-4.2	-16.0	30	8.3
31	3,017	-7.1	-19.5	30	9.5
31	3,592	-9.7	-22.4	30	10.9
31	4,207	-11.8	-24.5	30	12.1
31	4,866	-14.7	-28.1	33	14.1
31	5,575	-21.3	-33.4	29	15.6
31	6,344	-28.1	-38.1	29	17.1
31	7,183	-34.3	-42.	29	18.5
31	8,110	-41.1	-42.9	29	19.8
31	9,143	-47.5		29	22.5
31	10,329	-54.3		29	24.5
30	11,746	-57.2		29	22.7
30	12,594	-58.4		29	21.1
30	13,571	-58.9		29	19.8
30	14,722	-59.4		29	18.0
30	16,126	-59.1		29	15.6
29	17,531	-58.4		28	12.4
29	18,372	-58.4		28	10.6
28	19,333	-58.5		28	9.1
28	20,486	-57.7		28	8.4
28	21,886	-57.1		27	8.9
28	23,708	-56.9		26	8.4
28	24,872	-56.7		26	8.3
27	26,307	-55.6		26	10.5
26	28,178	-53.4		26	10.7
18	30,875	-48.5			

ST PAUL ISLAND, AK — 1002 MB

No. of observations	Dynamic height meters	Temperature (°C)	Dew Point (°C)	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m/s
30	10	3.6	-.7	01	4.2
19	64	4.6	-2.3	00	6.2
30	440	.6	-1.7	01	5.2
30	871	-1.8	-4.5	04	4.5
30	1,322	-5.7	-9.1	04	3.9
30	1,795	-8.8	-13.4	04	3.3
30	2,293	-11.3	-18.8	05	2.4
30	2,820	-13.9	-23.5	04	2.8
30	3,379	-17.0	-27.0	04	2.
30	3,978	-22.4	-30.8	01	2.1
30	4,615	-29.5	-34.0	01	2.1
30	5,302	-29.4	-39.2	01	2.1
30	6,047	-34.0	-42.9	01

RAWINSONDE DATA

Average monthly values

SAN JUAN, P. R.
1012 MB

Station pressure	No. of observations	Height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed
	31	109	24.1	21.5	10	2.1
	31	559	22.0	18.6	10	4.2
	31	1,027	19.6	15.5	10	4.6
	31	1,518	16.9	11.4	10	4.0
	31	2,033	13.9	7.5	10	3.5
	31	2,575	11.4	2.4	09	2.8
	31	3,149	8.4	-3.0	10	2.4
	31	3,758	5.2	-7.6	11	2.3
	31	4,408	1.4	-11.0	11	1.8
	31	5,104	-2.5	-15.8	10	2.7
	31	5,854	-6.7	-21.9	10	2.6
	31	6,670	-11.0	-26.0	09	2.0
	31	7,563	-17.3	-32.0	08	1.2
	31	8,553	-24.3	-31.6	04	.9
	31	9,650	-32.8	-45.4	34	.5
	31	10,911	-43.2		31	2.2
	30	12,376	-54.9		30	4.1
	30	13,218	-60.9		30	5.8
	30	14,161	-62.6		30	6.0
	30	15,242	-73.0		29	3.8
	30	16,534	-77.5		31	1.9
	31	17,817	-74.8		09	2.9
	30	18,601	-70.6		09	4.8
	30	19,520	-66.5		09	6.6
	30	20,640	-62.5		09	9.0
	30	22,031	-58.4		11	11.5
	30	23,860	-52.1		11	12.3
	27	25,051	-51.0		11	14.3
	26	26,513	-48.5		11	14.7
	25	28,420	-44.5		10	15.7
	7	31,149	-40.8		10	13.7

TRUK, CAROLINE IS.
1011 MB

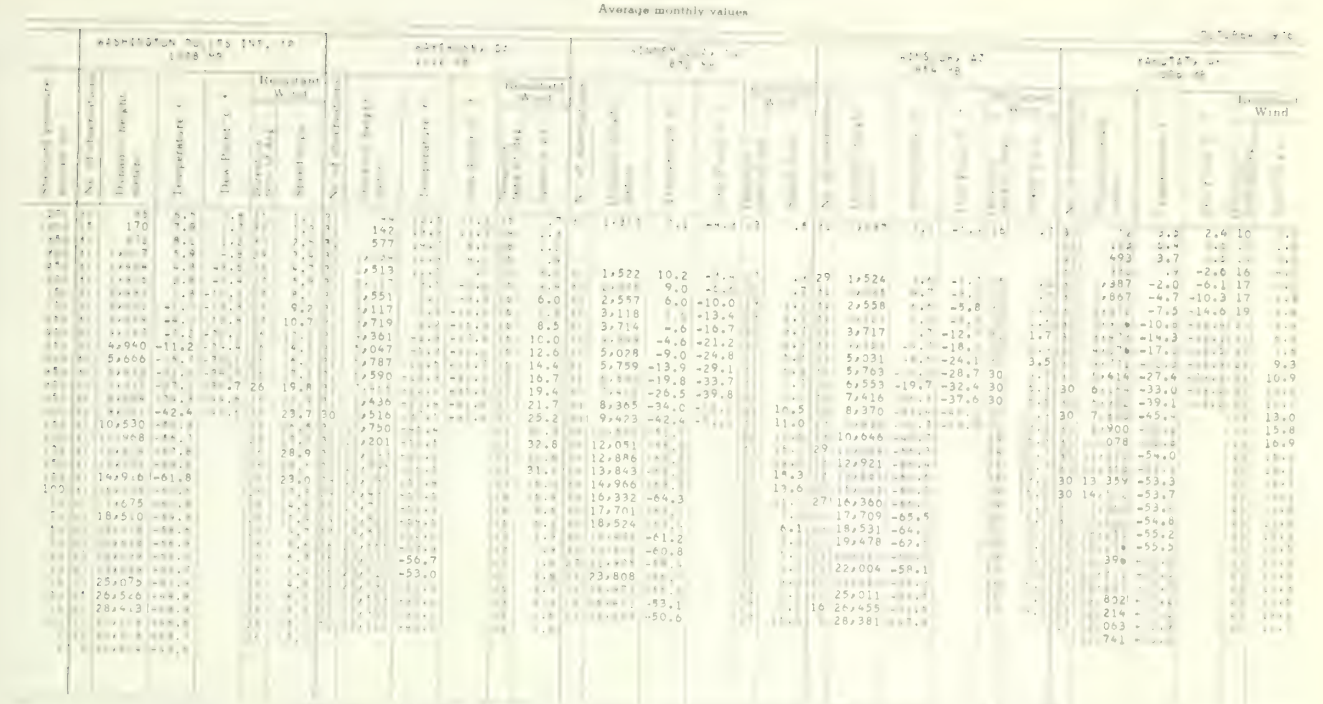
Station pressure	No. of observations	Height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed
	29	28.8	24.8	07		2.5
	29	27.3	24.0	07		2.9
	29	551	24.0	21.6	08	3.9
	29	1,023	21.0	18.3	08	5.3
	29	1,517	18.2	14.3	08	5.0
	29	2,030	15.8	11.6	09	4.9
	29	2,583	13.2	8.2	09	5.2
	29	3,161	10.2	4.6	09	4.8
850	29	3,776	6.8	-.5	09	5.1
800	29	4,429	3.1	-2.7	09	5.1
750	29	5,130	-.7	-8.3	09	5.1
	29	5,887	-4.8	-12.0	09	5.1
700	29	6,709	-9.6	-18.4	09	4.5
	29	7,610	-15.1	-26.3	09	3.5
650	29	8,610	-21.9	-32.7	11	2.6
	29	9,722	-30.3	-42.0	11	1.8
	29	10,966	-40.8	-49.7	18	2.4
	29	12,470	-53.3		20	3.6
175	29	13,316	-60.3		20	3.1
	29	14,259	-65.4		21	2.4
	29	15,334	-75.9		66	.5
100	29	16,607	-79.3		11	2.6
80	29	17,885	-75.1		07	3.1
	29	18,668	-71.1		10	1.7
	29	19,591	-67.1		10	
	29	20,705	-63.2		08	3.8
	29	22,092	-59.1		09	11.4
	25	23,919	-54.2		09	23.5
	25	25,094	-52.0		09	27.9
	25	26,551			09	30.9
	19		-43.5		09	29.5
			-35.8			

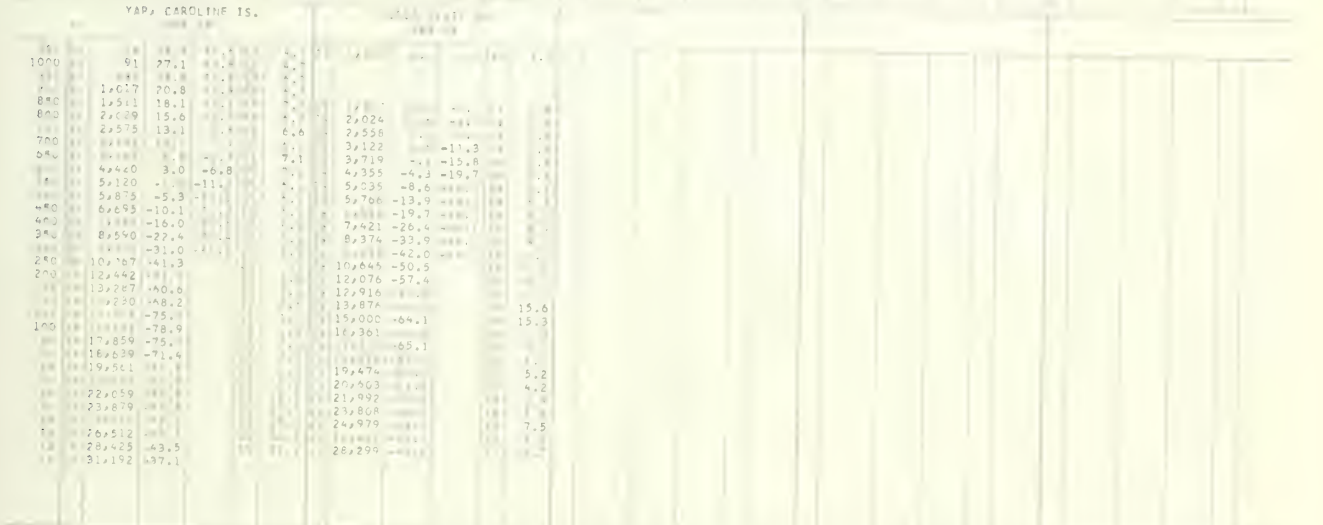
WAKE IS., PACIFIC AREA
1015 MB

Station pressure	No. of observations	Height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed
	31	4	11.3			1.5
	31		12.9		34	2.2
	31	577	10.6	4.1	31	2.4
	31	1,023	8.3	1.4	08	3.5
	31	1,547	6.5	-3.5	26	5.3
	31	1,990	4.8	-5.0	26	6.3
	31	2,514	2.8	-9.7	11	8.2
	31	3,071		-12.2	26	10.0
	31	3,661	-2.7	-16.4	26	11.5
	31	4,292	-5.9	-19.7	26	13.8
	31	4,969	-9.7	-23.6	25	16.1
	31	5,699	-13.3	-28.4	98	19.4
	31	6,490	-19.8	-32.5	25	
	31	7,353		-36.9		23.3
	31	8,308	-33.0	-43.6	25	24.9
	31	9,372	-41.0	-47.8		27.7
	25	10,590	-49.0			30.8
	31	12,032	-55.5			31
	31	12,879	-57.4			29.0
	31	13,846	-60.5			26.5
	31	14,976	-62.6			24.4
	25	16,352	-63.2			18.3
	25	17,725				14.0
	26	19,525				10.7
	23	20,679				7.7
		22,103				6.0
			-52.2			3.3
	23		-50.8			1.4
	25		-50.6			1.6
			-49.0			4.1
	25		-43.9			5.6

RAWINSONDE DATA

Average monthly values





SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun.

ALBUQUERQUE, NM

Date	Sun's zenith distance: A M 78.7°	75.7°	70.7°	60.0°	*	P M 60.0°	70.7°	75.7°	78.7°
	Air mass: 4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
3	.96	1.06	1.19	1.33	1.46	----	----	----	----
4	----	----	----	1.24	----	----	----	----	----
5	1.03	1.13	1.22	1.35	1.43	1.30	1.12	----	.86
6	----	----	----	----	----	1.30	1.13	.97	.82
7	----	----	1.16	----	----	1.31	1.14	1.03	.92
8	1.02	1.13	1.23	1.36	1.45	1.33	1.18	1.06	.95
9	1.03	1.14	1.24	1.39	1.49	1.37	1.23	1.12	1.01
10	1.04	1.17	1.25	1.38	1.48	1.40	1.24	1.12	1.02
11	1.03	1.15	1.22	1.36	1.47	1.36	1.21	1.11	.99
12	.98	1.10	1.19	1.32	1.45	1.26	----	----	----
13	.89	1.01	1.13	1.29	1.41	(1.29)	1.13	1.03	.88
14	.87	1.00	1.08	1.25	1.39	1.25	1.06	.97	.85
15	.85	.94	1.01	1.22	1.38	1.20	1.03	.89	.74
16	.91	1.04	1.14	1.29	1.39	1.29	1.14	1.02	.85
17	.90	1.03	1.13	1.28	----	----	----	----	----
19	1.02	1.14	1.21	1.36	1.47	1.36	1.20	1.10	1.01
20	1.00	1.05	----	----	----	1.35	1.23	1.06	----
25	.91	1.01	1.15	1.29	1.40	1.28	1.15	1.03	.90
26	.82	.95	1.12	1.20	1.38	----	----	----	----
29	----	----	----	----	----	----	1.19	----	.96
30	----	----	----	1.35	----	----	----	----	----
31	----	98	1.12	1.24	1.35	1.22	1.08	.94	.84
Averages	96	1.06	1.16	1.31	1.43	1.31	1.15	1.03	.91

BLUE HILL OBSERVATORY, MA

Date	Sun's zenith distance: A M 78.7°	75.7°	70.7°	60.0°	*	P M 60.0°	70.7°	75.7°	78.7°
	Air mass: 4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
10	----	----	----	----	1.11	1.02	.92	.87	.79
11	.89	----	----	----	1.13	1.07	.96	.85	.77
12	----	----	----	----	----	.95	.85	.74	.66
13	.66	.73	----	1.03	.96	----	----	.53	.42
15	----	----	----	----	.92	.84	.74	.61	.55
16	----	.70	----	.96	1.01	----	----	.65	.50
18	----	----	----	----	1.09	----	.93	.83	.75
27	.72	.82	.92	1.01	1.06	----	----	----	----
29	.63	.72	.82	.98	----	.95	.82	.68	.59
Averages	.73	.74	.87	1.00	1.04	.97	.87	.72	.63

MADISON, WI

	Air mass: 4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
1	S .74	S .83	S .95	S 1.00	S 1.22	S 1.06	S .90	S .78	S .69
2	M .60	M .73	M .86	M 1.02	M 1.14	M 1.01	M .83	M .71	M .59
3	M .68	M .76	M .88	M 1.01	----	----	----	----	----
6	----	----	----	S 1.28	S 1.34	----	----	----	----
13	----	----	----	M 1.17	S 1.33	----	----	----	----
15	D .39	D .47	D .62	----	----	----	----	----	----
17	S .83	S .95	S 1.10	S 1.29	S 1.37	----	----	----	----
21	M .75	M .83	----	----	----	----	----	----	----
27	----	----	S 1.02	S 1.23	S 1.23	S 1.25	----	----	----
28	I .59	I .70	M .85	M 1.06	M 1.13	M 1.07	H .89	H .74	H .64
29	H .46	H .60	H .74	----	----	----	----	----	----
31	S .88	S .99	S 1.11	S 1.26	S 1.29	S 1.26	S 1.11	S 1.01	S .90
Averages	.66	.76	.90	1.15	1.26	1.13	.93	.81	.70

MAUNA LOA OBSERVATORY, HA

	Air mass: 3.36	2.63	2.01	1.34	*	1.34	2.01	2.63	3.3
2	1.17	1.25	1.34	1.44	1.52	----	----	----	---
3	1.15	1.23	1.32	1.42	----	----	----	----	---
4	1.19	1.27	1.35	1.45	----	----	----	----	---
5	1.17	1.25	1.35	1.45	----	----	----	----	---
6	1.17	1.24	1.32	1.42	----	----	1.27	----	---
8	1.17	1.25	1.34	1.45	----	----	----	----	---
9	1.19	1.27	1.35	1.46	----	----	----	----	---
10	1.17	1.24	1.33	1.43	1.54	----	----	----	---
18	1.27	1.34	1.43	1.53	----	----	----	----	---
19	1.26	1.33	1.42	1.52	----	----	----	----	---
25	1.28	1.36	1.45	1.55	1.62	----	----	----	---
26	1.22	1.29	1.39	1.50	----	----	----	----	---
Averages	1.20	1.28	1.37	1.35	1.56	----	1.27	----	---

OMAHA NE

	Air mass: 4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
1	----	----	----	1.20	----	----	.94	.80	.69
2	----	----	.88	1.04	----	----	----	----	----
7	----	.91	1.02	1.19	----	----	.97	.86	.77
8	----	.97	1.08	1.23	1.30	----	----	----	----
9	.87	.97	1.09	1.23	1.30	1.21	1.01	.91	.64
11	----	----	----	1.25	1.29	1.17	1.21	.82	.71
13	----	----	----	----	1.29	1.20	1.05	SH .89	MH .78
14	----	.88	.99	1.14	----	----	.96	SH .82	----
15	----	----	.90	1.16	1.28	1.18	1.02	.83	.73
16	----	.93	1.04	----	----	1.17	1.00	.84	.61
21	----	----	----	1.21	1.25	1.28	.94	.90	.79
22	.68	.80	----	----	----	----	----	----	----
28	H .61	H .68	----	----	----	----	----	----	----
31	.90	1.00	1.12	----	----	1.19	----	----	----
Averages	.76	.89	1.14	1.18	1.28	1.20	1.01	.85	.71

TUCSON, AZ

	Air mass: 4.64	3.71	2.78	1.86	*	1.86	2.78	3.71	4.6
2	.88	.94	1.04	1.23	1.41	1.24	1.08	.98	.8
3	.88	.97	1.08	1.26	1.40	1.20	1.01	.88	.7
4	.84	.94	1.05	1.23	1.41	1.30	1.14	1.02	.9
5	.93	.99	1.12	1.27	1.40	1.24	1.02	.89	.7
6	.85	.94	1.05	1.21	----	----	----	----	---
7	.93	1.02	1.14	1.27	1.41	1.20	1.01	.91	.7
8	.98	1.08	1.20	1.32	1.45	1.31	1.17	1.06	.9
9	1.06	1.15	1.25	1.36	1.46	1.33	1.19	1.07	.9
10	1.07	1.16	1.26	1.40	1.51	1.35	1.19	1.07	.9
11	.97	1.07	1.17	1.30	1.46	1.28	1.12	.99	.8
12	.87	.95	1.08	1.25	1.35	----	----	----	---
13	----	.76	.89	----	----	----	----	----	---
15	.84	.94	1.05	1.24	1.37	1.25	1.07	.95	.8
16	.85	.95	1.06	----	1.38	----	----	----	---
17	----	----	----	----	----	----	----	----	.8
18	----	----	----	----	1.29	----	----	----	---
19	79	.89	1.02	1.16	1.35	1.24	1.03	.88	.7
20	81	.90	1.01	1.17	1.27	----	----	----	---
21	----	----	----	1.12	----	----	----	----	---
22	----	----	1.03	1.19	----	1.19	----	----	.7
23	----	.92	1.06	1.23	----	1.25	1.08	----	---
24	91	.99	1.10	1.26	1.36	1.20	1.07	.96	.8
25	.83	.94	1.08	1.26	1.37	1.21	1.06	.97	.8
26	.80	.92	1.04	1.23	----	1.14	---	----	---
27	.64	.78	.94	1.11	1.26	----	----	----	---
28	.78	.90	1.04	1.23	1.35	----	1.00	.81	.7
29	.94	1.03	1.13	1.24	1.39	1.28	1.10	1.04	.9
30	.99	1.07	1.22	1.35	1.43	----	1.12	1.00	.8
31	.91	.98	1.14	1.27	1.39	1.26	1.07	.90	.8
Averages	.89	.97	1.09	1.25	1.38	1.25	1.08	.96	.8

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

OCTOBER 1976

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
ALBUQUERQUE NM	387	387	402	412	415	404	406	417	405	408	457	426	437	420	429	427	387	286	430	378	270	326	290	284	384	328	154	117	374	337	375	378
BISMARCK ND	383	362	209	383	304	176	338	365	350	305	324	272	293	286	335	346	101	197	---	249	295	295	87	66	65	136	145	264	251	169	254	257
CARIBOU ME	332	309	380	336	337	127	---		---	88	---	325	69	31	154	130	192	133	305	140	43	240	104	222	53	111	140	171	130	105	21	174
EL CENTRO CA	479	465	440	448	424	422	493	511	514	506	489	468	477	466	471	400	429	416	418	416	423	423	304	413	424	434	427	432	424	416	417	449
EL PASO TX	471	304	331	319	305	486	475	497	517	511*	---	488*	232	381	413	456	436	426	475	374	299	412	446	399	432	437	64	49	403*	418	412	409
ELY NV	40	466	434	467	436	450	453	446	440	425	249	436	429	426	417	380	410	418	402	396	385	387	334	329	257	348	356	362	307	346	334	370
FLAMING GORGE UT	385	279	308	406	442	312	304	436	506	479	447	485	477	487	461	456	439	408	446	440	425	350	336	317	224	196	423	---	401	316	394	406
FRESNO CA	107	435	427	440	432	428	413	420	422	421	408	418	413	408	401	322	345	377	308	451	244	330	336	349	371	361	365	357	311	340	339	375
GENEVA NY	339	212	336	339	328	247	89	50	23	230	350	376	228	240	244	112	197	213	195	67	213	232	214	26	20	191	238	261	186	159	24	208
GRAND JUNCTION CO	343	276	304	342	427	397	376	471	456	454	296	427	429	432	423	415	325	---	425	415	301	250	306	375	354	243	372	373	366	323	348	370
JOHNSTON ISLAND PAC	375	379	373	303	385	321	348	496	516	548	564	526	437	318	529	525	330	499	300	388	325	303	102	187	463	514	487	524	527	400	481	463
MADISON WI	377	387	365	175	70	378	372	278	234	361	202	330	365	262	236	124	326	143	71	253	241	311	210	61	202*	218	330	291	239	38	290	254
MAJURO PAC	524	248	224	487	516	569	582	488	489	194	419	539	462	395	510	333	342	186	342	430	505	514	527	248	147	482	555	74	524	403	497	427
MIAMI FL	247	481	430	381	447	388	444	502	200	248	148	392	434	251	490	362	230	392	326	109	442	433	306	341	422	345	449	182	415	454	418	356
NASHVILLE TN	433	437	443	427	389	72	105	58	385	441	454	433	396	440	367	163	418	429	271	92	402	389	136	77	97	135	268	390	234	55	64	288
OAK RIDGE TN	383	389	401	421	330	213	207	135	194	397	424	419	381	442	354	126	335	424	341	90	400	394	284	39	33	111	331	386	325	61	46	278
PAGO AZ	393	378	437	---	---	---	382	539	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PHOENIX AZ	422	444	426	400	404	445	402	476	471	469	436	435	336	408	419	412	370	368	410	394	240	265	121	373	373	368	356	367	376	348	387	389
SEATTLE TACOMA WA	223	241	220	398	299	337	305	389	295	254	214	274	229	288	314	312	360	337	340	123	170	265	146	89	124	155	289	79	194	144	118	245
STERLING VA	20	30	104	261	402	221	233	90	172	381	415	416	376	417	400	326	29	398	343	---	288	355	318	45	62	162	300	349	---	140	169	221
TALLAHASSEE FL	207	212	302	400	402	206	38	80	445	501	---	503	463	440	424	199	123	463	320	272	406	401	449	341	47	260	330	234	414	85	398	345

NET RADIATION

Net radiation in langleys per day (8 a.m. to 8 a.m.) at Palmer, Alaska. OCTOBER 1976

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys	- 16	- 4	17	21	8	62	1	- 37	- 28	18	10	0	- 4	0	- 8	- 20	- 57	- 19	- 27	- 17	- 21	- 28	11	7	13	6	- 17	- 55	- 53	- 69	- 18	- 16

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals and monthly average (< 3900 A) at Ames, Iowa

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
Langleys																																

NO DATA RECEIVED

TOTAL OZONE DATA

These provisional ozone data are obtained from measurements made with a Dobson ozone spectrophotometer, and are applicable approximately to local apparent noon. The data are presented in the code 15 2 2 2 defined in the August 1962 WMO circular entitled 'PUBLICATION OF DATA FOR METEOROLOGICAL RESEARCH, WORLD OZONE DATA.'

Units Milli-atmo-cms.

Station	Day of month																															Mean O_3
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

NO DATA RECEIVED

REFERENCE NOTES

+ And also on an earlier date or dates
D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Wind directions under resultant direction are in tens of degrees.

are not equipped with a wind direction recorder. Wind direction is in tens of degrees. These stations

B Number of days maximum 21.1°C. or above for Alaskan Stations
Y Peak Gust.
+ And also on an earlier date or dates.
U Indicates Urban site.
R Indicates Rural site.
Ø Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publicatio

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters
1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

Includes crop damage.
(Crop damage.
• No occurrence of storms or unusual weather phenomena reported.
Includes heavy sleet storm.
Freezing drizzle and freezing rain, commonly known as glaze.
Ø For breakdown of "All Others," and for detailed listing of other storms, see the Environmental Data Service, NOAA, publication, STORM DATA.
‡ No Storm Data Report received for this State.
<> Report Incomplete.
↑ Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5 Million
7	$5 Million to $50 Million
8	$50 Million to $500 Million
9	$500 Million to $5 Billion.

NERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1/ Flooding continued at the end of the month.
NA Not available.

OOD STAGE DATA:

Highest Stage Observed
1/ Continued at end of month
Highest Stage of Record
E Estimated
P Provisional (Flood Stage)
U Unknown

AINSONDE DATA (Average Monthly Values):

observations scheduled at 1200, G.C.T.

Observations for these stations are scheduled at 0000 G.C.T.
Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of

REFERENCE NOTES

SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

()	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
*	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeterminable
BD	Blowing Dust	F	Fog	I	Intense Haze-indeterminable		
BN	Blowing Sand	GF	Ground Fog	K	Smoke	N	Sand
D	Dust	H	Haze	KI	Intense Smoke	S	Slight Haze-indeterminable
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		

SOLAR RADIATION TOTALS: Langley is the unit used to denote one gram calorie per square centimeter.

* Values with an asterisk are interpolated.
Data are only for those stations equipped with Eppley Model II sensors.

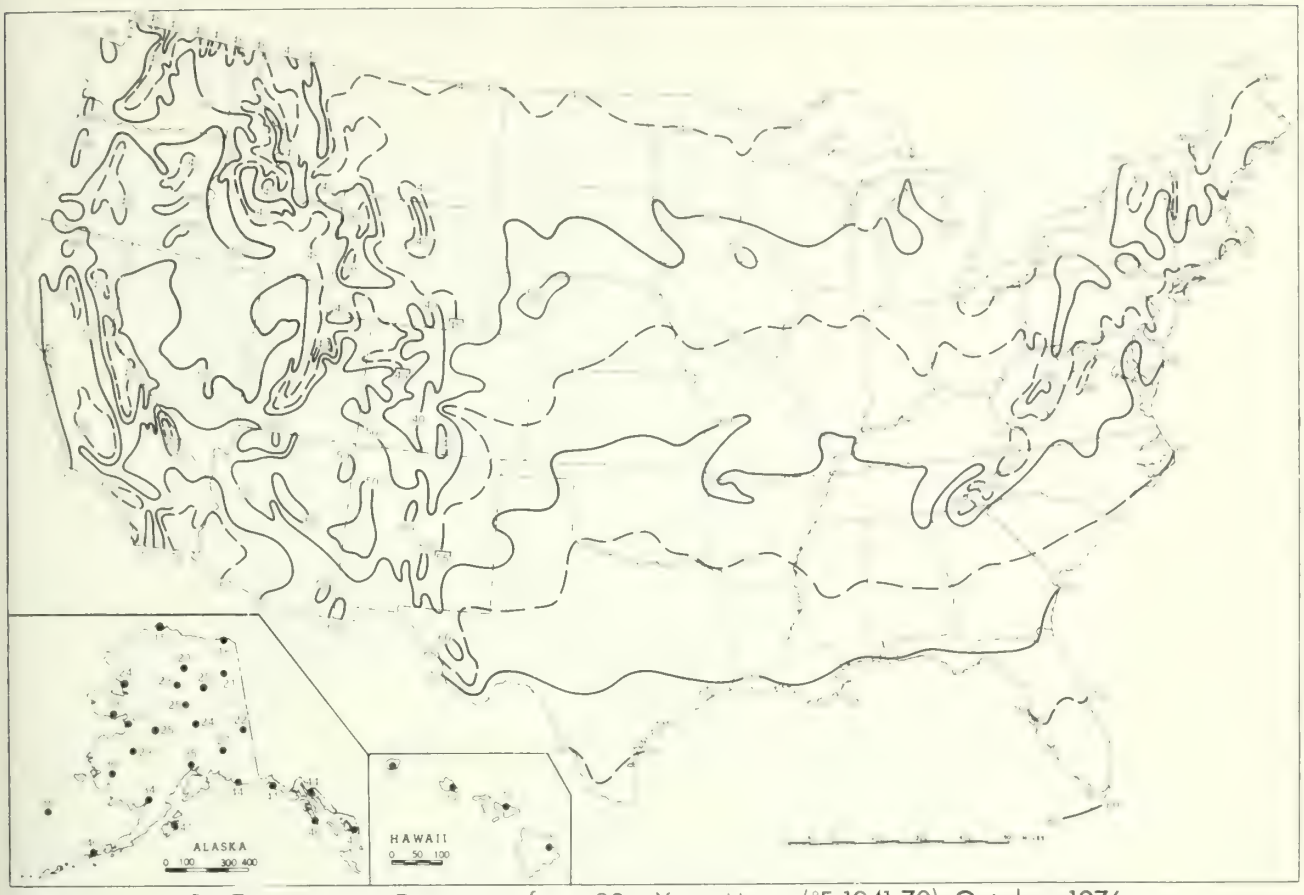
NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded $\Omega\ \Omega\ \Omega$) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code $_{\lambda}$S designates the type of measurement made.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), October.



B. Temperature Departure from 30 - Year Mean (°F 1941-70), October 1976

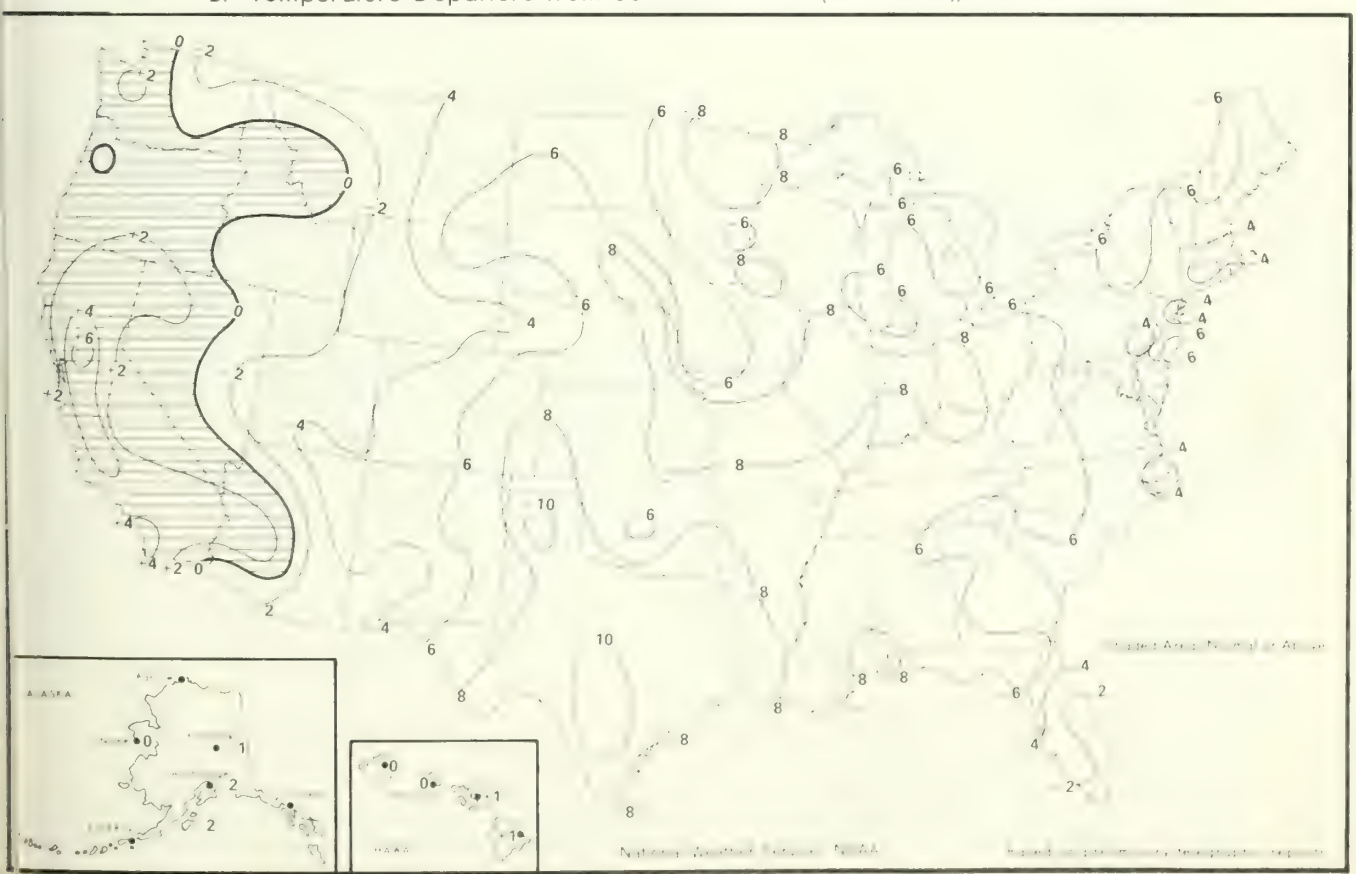
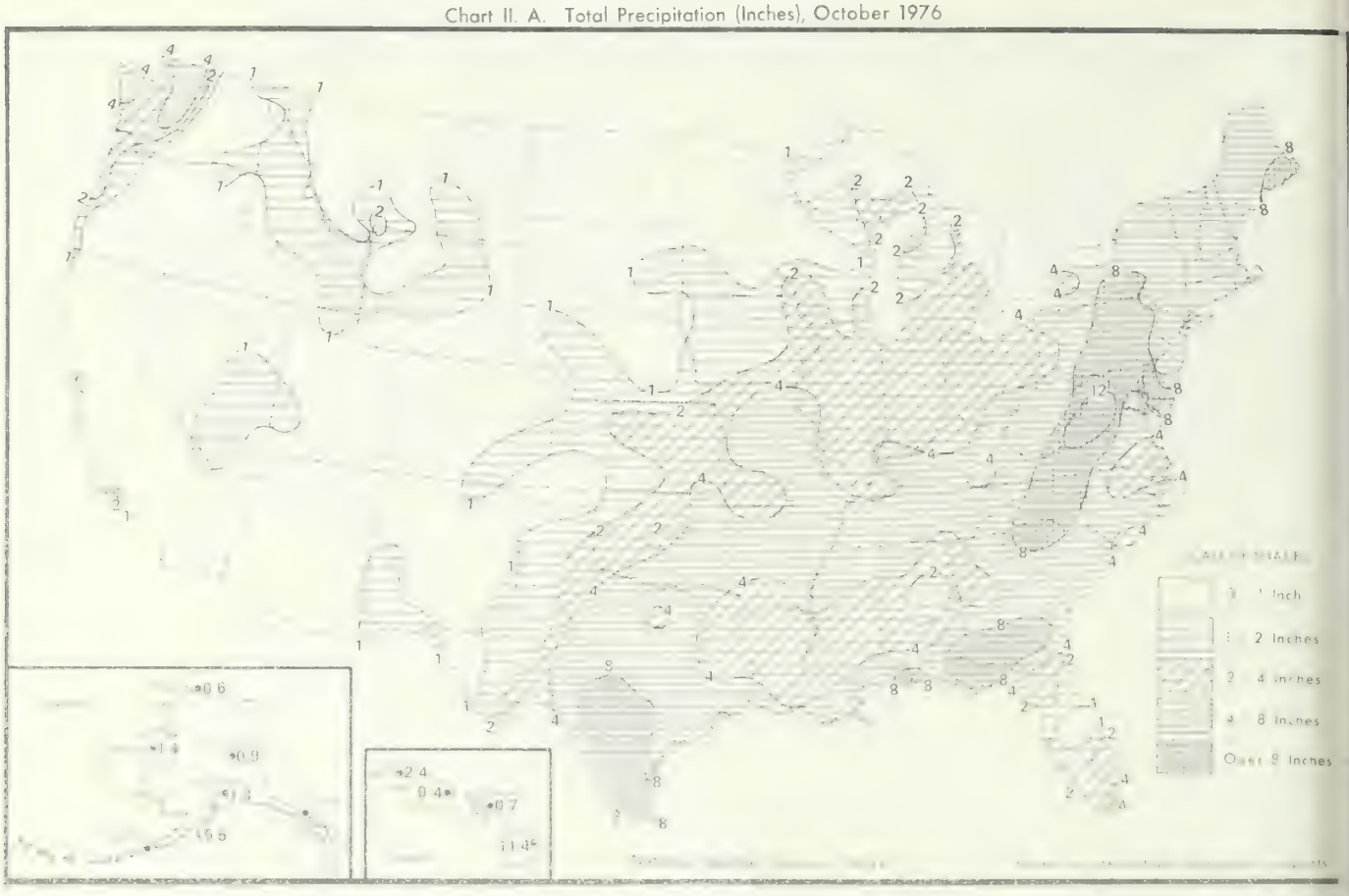


Chart II. A. Total Precipitation (Inches), October 1976



B. Percentage of Normal Precipitation, October 1976

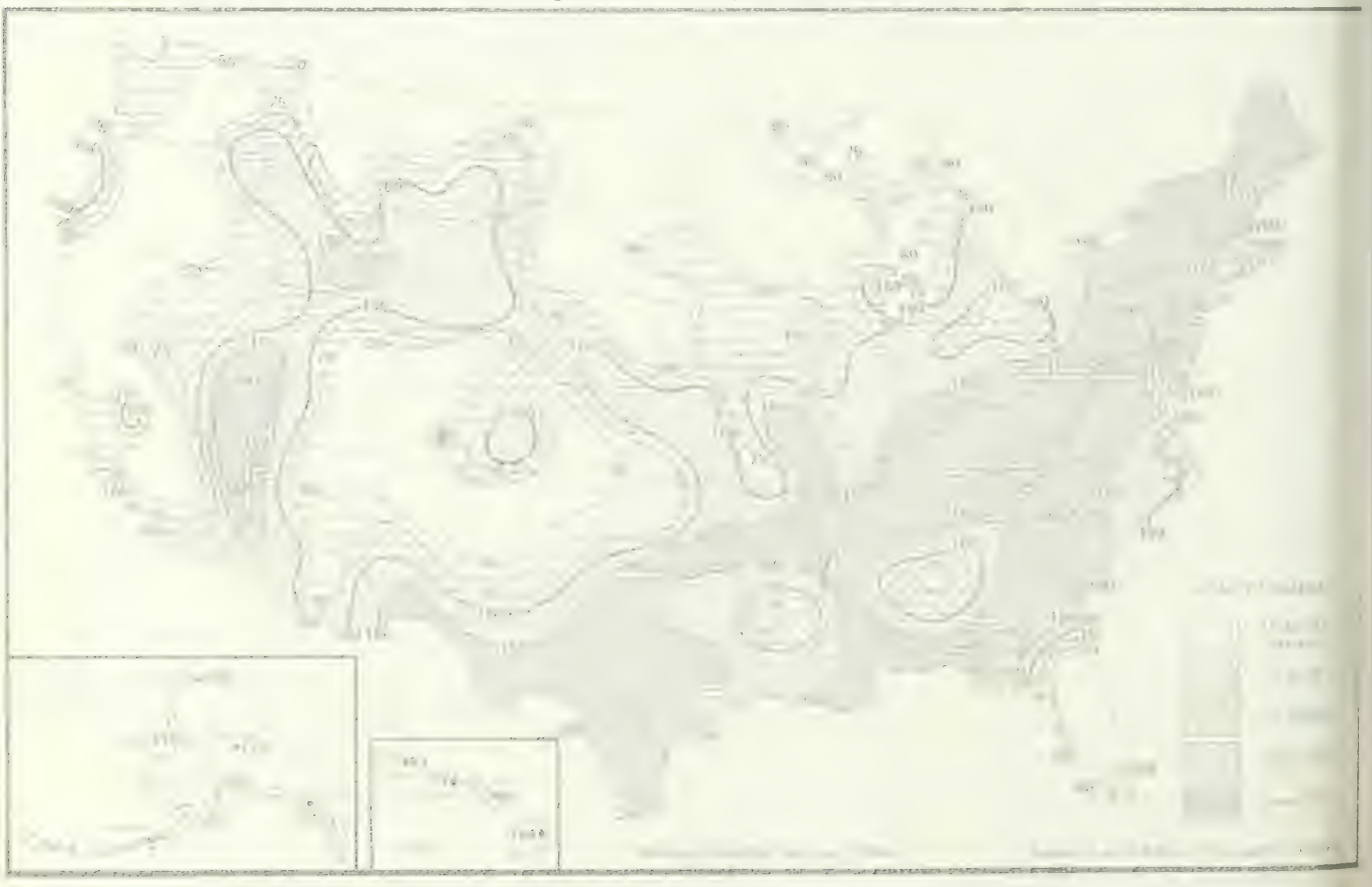
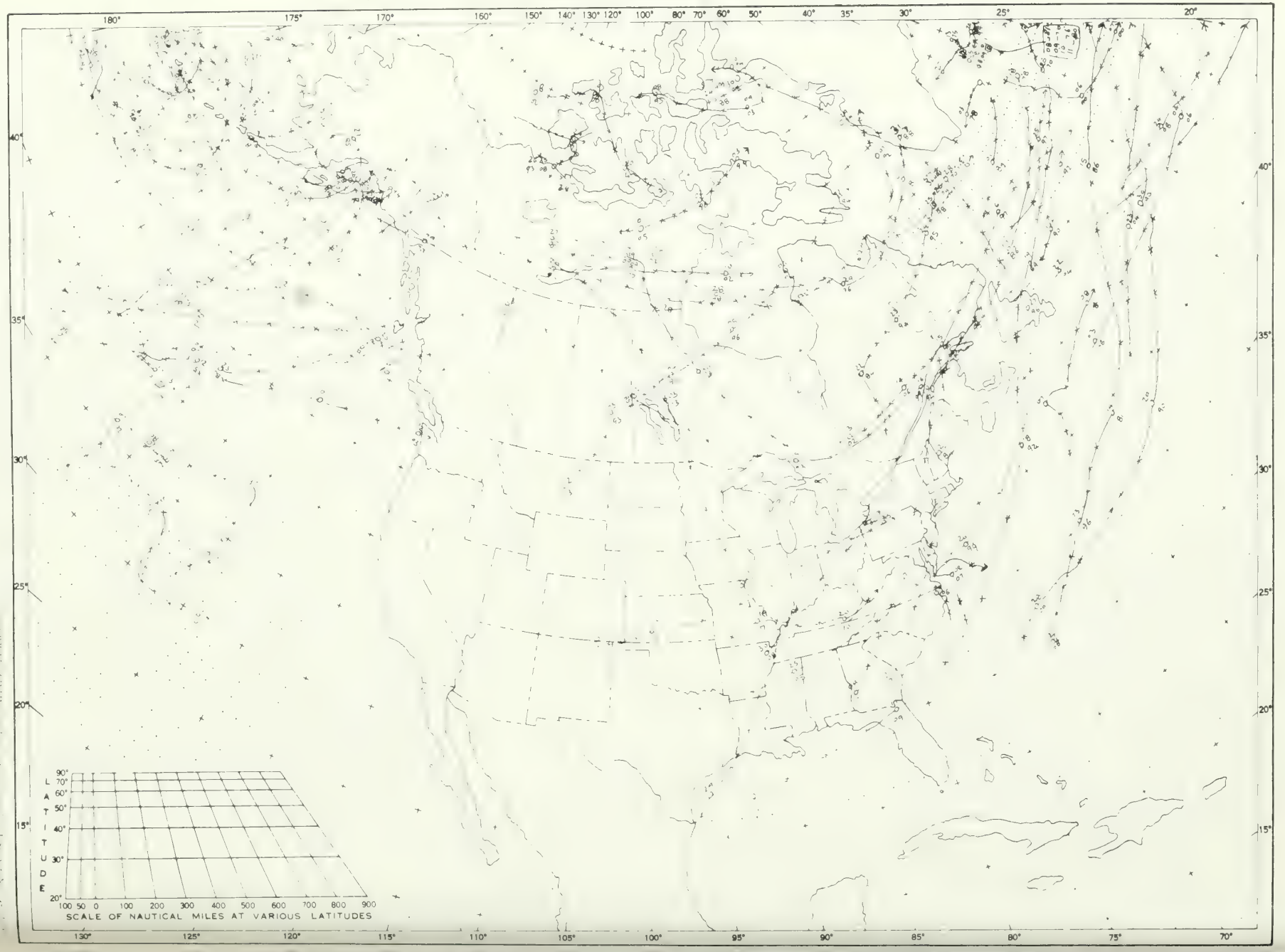


Chart IV. Tracks of Centers of Cyclones at Sea Level, October 1976



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NOVEMBER 1976 VOLUME 27 NUMBER 11

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

NOVEMBER 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

HIGHLIGHTS: The very cold temperatures east of the Rockies and the dearth of precipitation over most of the country were the dominant factors in November's weather. Precipitation was normal to above normal in southeast Arizona, southern parts of Texas, Louisiana, Mississippi, and Alabama, most of Georgia, South Carolina, and Florida, and southern North Carolina. The rest of the Nation recorded below normal precipitation for November. Most of the previously dry area of the northern Plains received only about 10% of normal precipitation. The November average temperatures east of the Rockies were the coldest ever experienced in many areas, especially in the South.

Continuing a pattern that began in early October, all areas from the western high Plains to the East Coast recorded below normal temperatures in the first week of November. Weekly readings in southeastern United States averaged 9 to 10° colder than normal. A series of cold outbreaks in the northern Plains and a low pressure system moving across southeastern Canada implanted cold conditions in the eastern United States with only moderate warming between cold air surges. Welcome rain fell on the dry peninsula area of Florida. Rain or snow showers occurred in parts of the Pacific Northwest, and snow fell around the Great Lakes area and from the central Appalachians northward. Some rain dampened the New England Coast.

In the second week of the month cold weather persisted east of the Rockies, as the precipitation area increased. A series of low pressure systems that formed in the southern Rockies first moved eastward, then northeastward. As the more dense cold air lifted the warm, moist air form the Gulf of Mexico, snow, sleet, freezing rain or just cold rain appeared as the systems moved eastward through the southern States. Snow reached record depths in west Texas, where up to 10 inches piled up in some areas. A low pressure center off the West Coast moved onshore and produced light to moderate rain along the Coast and light showers of rain or snow in the Sierras, Cascades, and Plateau areas.

The week after mid-November brought warmer weather to the central and northern Plains, where daytime temperatures rose to near 60° at some stations. Credit goes to a high pressure center in the Rockies, which created a downslope flow that warmed the area. From the western Great Lakes region to Arizona and westward, warmer than normal weather prevailed, but most of eastern and southern United States remained unseasonably cold. In east Texas the average temperature for the week skidded to 12° below normal. Rain, heaviest along the Gulf Coast, continued in the South and Southeast as the warm air moved over the cold air, which was now well into the Gulf. Elsewhere, rain or snowshowers continued in the Pacific Northwest and light snow fell in the extreme northern Plains, the Lakes area, the Appalachians, and in New England.

The final week of the month introduced a vigorous winter storm to the Northwest that ended the warmer than normal weather in the West. Though the western chill didn't match the frigid temperatures in the East, the mercury dipped below normal in all areas except the extreme Southwest. Parts of the central and northern Appalachians and New England measured normal or above normal readings for the first time in many weeks. Average temperatures in the northern Plains and southern Rockies sank 8 to 10° below normal. Widespread and generally light precipitation bypassed only the Southwest and small areas in the Plains. Heaviest amounts fell in the South and Southeast.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	Whatley	81	11	2 Stations	9	30	Abbeville 1 NNW	10.59	Birmingham WSO AP	2.23
Alaska	2 Stations	60	12	Umiat	-45	4	Mac Leod Harbor	70.99	College Observatory	.12
Arizona	2 Stations	93	7	Clay Springs	-21	28	Coronado NM Headquarters	1.44	7 Stations	.00
Arkansas	2 Stations	78	26	Gilbert	0	29	Langley	3.82	Mammoth Springs	D .35
California	2 Stations	100	4	Bodie	-15	27	Cazadero 3 W	4.34	12 Stations	.00
Colorado	Las Animas	79	8	Hot Sulphur Springs 2 SW	-37	28	North Lake	2.93	4 Stations	.00
Connecticut	2 Stations	64	27	Hautboy Hill Farm	4	30	Shepaug Dam	1.45	Putnam Lake	.30
Delaware	3 Stations	68	26	Wilmgton Porter Reservoir	14	30	Bridgeville 1 NW	1.29	Wilmgton Porter Reservoir	.34
Florida	Clewiston U. S. Engineers	91	29	Fountain 3 SSE	17	9	Madison 4 N	10.89	Key West WSO AP	.50
Georgia	Savannah USDA Pl. Grdn.	84	28	Jasper 1 NNW	8	30	Quitman 2 NW	9.75	Mount Vernon 3 WNW	2.18
Hawaii	2 Stations	89	25	Haleakala R. S. 338	29	8	Honomu Mauka 138	24.37	2 Stations	.00
Idaho	Glenns Ferry	75	6	Stanley	-21	27	Wallace Woodland Park	2.94	12 Stations	.00
Illinois	Cahokia	79	19	Mount Carroll	-15	29	Watseka 2 NW	1.55	Cahokia	.04
Indiana	Edwardsport Power Plant	69	27	Plymouth Power Substation	0	29	South Bend WSO AP	3.23	Elwood	.13
Iowa	2 Stations	74	19	2 Stations	-15	30	Donnellson	.61	8 Stations	.00
Kansas	Liberal	80	18	2 Stations	- 9	28	Leoti 3 E	.70	3 Stations	.00
Kentucky	2 Stations	73	28	Cynthiana 2	- 3	30	Murray	1.86	Little Hickman Lock 8	.19
Louisiana	Hineston 4 NNE	82	12	Plain Dealing	11	30	Plaquemines Exp. Station	9.83	Morringsport 1 N	1.32
Maine	Saco	67	27	Houlton FAA AP	0	30	Bridgewater	3.22	Saco	.67
Maryland	La Plata 1 W	75	19	McHenry 2 NW	1	30	Hagerstown	2.23	Chestertown	.21
Massachusetts	Chestnut Hill	71	28	Chester 2	2	30	Edgartown	2.70	Springfield	.54
Michigan	Muskegon WSO AP	63	26	Crystal Falls 6 NE	-20	29	Whitefish Point	4.28	Standish 2 SSW	.18
Minnesota	Luverne	76	1	Tower 3 S	-33	30	Isle 8 N	D .67	13 Stations	T
Mississippi	2 Stations	80	12	3 Stations	11	30	Vancleave	8.31	Greenwood	1.63
Missouri	Annapolis 3 SW	80	18	Maryville 2 E	-11	30	Warrenton 1 N	2.15	Tarkio	T
Montana	Roundup	77	4	Opheim 10 N	-30	28	Swan Lake	3.15	Raymond Border Station	.00
Nebraska	2 Stations	77	8	2 Stations	-23	28	Harrison	.80	8 Stations	.00
Nevada	Sunrise Manr Las Vegas	88	3	Rand Ranch Palisade	-13	28	North Fork 7 NW	.66	14 Stations	.00
New Hampshire	Durham	68	27	Mount Washington	-11	30	Mount Washington	13.61	Peterboro 2 S	.59
New Jersey	Toms River	67	27	Newton St. Pauls Abbey	8	30	High Point Park	1.59	2 Stations	.23
New Mexico	Amistad 1 SSW	80	6	Eagle Nest	-38	28	Ruidoso 2 NNE	2.05	Picacho	.00
New York	2 Stations	67	28	Ithaca Cornell University	- 4	30	Bennett Bridge	7.12	Westchester County AP	.26
North Carolina	Plymounth 5 E	78	19	Grandfather Mountain	- 2	30	Hamlet	4.58	Asheville	1.32
North Dakota	La Moure 2 W	75	2	2 Stations	-20	29	Stanley 3 NNW	.50	16 Stations	T
Ohio	Ironton	74	28	Warren 3 S	- 7	30	Dorset	2.17	St. Marys 3 W	.16
Oklahoma	2 Stations	81	18	Kenton	-15	28	Carnasaw Tower	2.99	12 Stations	T
Oregon	4 Stations	76	5	Fremont	-11	27	Nehalem 9 NE	6.53	4 Stations	T
Pennsylvania	4 Stations	68	28	Montgomery Lock and Dam	- 5	30	North East 2 SE	3.47	Palm 3 SE	.19
Puerto Rico	San Sebastian 2 WNW	95	21	Adjuntas Substation	51	27	Dos Bocas	8.10	Caonillas Utuado	.00
Rhode Island	Providence WSO AP	62	26	North Foster 1 E	13	30	Newport	.89	North Foster 1 E	.62
South Carolina	3 Stations	78	29	Caesars Head	7	30	Johnston 2 SW	6.74	Conway	2.23
South Dakota	Interior 3 NE	75	1	Porcupine 16 NW	-22	28	Lead 1 E	2.07	3 Stations	.00
Tennessee	Mount Pleasant 2 SW	75	19	2 Stations	1	30	Athens	3.59	Portland Sewage Plant	.79
Texas	5 Stations	87	12	Stratford	-10	28	Houston-Deer Park	8.60	3 Stations	T
Utah	Zion National Park	81	7	Silver Lake Brighton	-18	27	Blowhard Mountain Radar	1.04	20 Stations	.00
Vermont	Rutland	64	27	Mount Mansfield	- 3	30	Mount Mansfield	7.88	Pownal 2 NE	.84
Virginia	Wakefield 1 NW	78	19	Big Meadows	- 1	30	Stuart 1 SSE	3.18	Manassas 3 NW	.25
Virgin Islands	Frenchmans Bay	91	26	Charlotte Amalie 2	60	9	Ham Bluff Light House Sta.	4.69	Frederiksted	.71
Washington	Glenoma 1 W	73	4	Hatton 9 ESE	1	27	Cedar Lake	7.84	3 Stations	.00
West Virginia	6 Stations	72	28	Spruce Knob	- 6	30	Pikens 1	2.80	Parkersburg WSO CI	.34
Wisconsin	2 Stations	62	3	Couderay 8 W	-32	30	Mellen 4 NE	1.48	22 Stations	T
Wyoming	Carpenter 3 E	73	5	Darwin Ranch	-46	27	Alva 5 SE	1.65	7 Stations	.00

CLIMATOLOGICAL DATA

METRIC UNITS

NOVEMBER 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average max. temp.	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days Max 32.2 °C or above	Temperature: No. of days Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days 2.5 mm or more	Precipitation: No. of days With thunderstorms	Precipitation: Snow, Ice pellets Total	Precipitation: Snow, Ice pellets Maximum depth on ground	Wind: Fastest mile (1.6 kilometers) Resultant speed	Wind: Fastest mile (1.6 kilometers) Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No. of days (sunrise to sunset) Clear 0.3	No. of days (sunrise to sunset) Partly cloudy 4.7	No. of days (sunrise to sunset) Cloudy 8.10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
ALABAMA																																
BIRMINGHAM	189	998.6	1021.5	13.9	1.0	7.5	-3.7	22.2	10	-9.4	30	0	15	1.7	73	57	-38	23	6		T	T	10	33	8.9	NW	21+	13	4	13	5.2	56
HUNTSVILLE	190	997.6	1021.4	12.6	-0.6	6.1	-4.1	22.8	27	-9.4	30+	0	17	-1.1	63	66	-32	41	6	0	T	T	11	31	9.8	W	21	17	3	11	4.4	
MOBILE	64	1013.2	1021.2	16.0	4.7	10.3	-4.4	22.8	11+	-4.4	30	0	4	3.3	68	118	32	55	11	1	0	0	16	35	9.4	W	12+	12	4	14	5.4	
MONTGOMERY	59	1014.2	1021.5	14.9	2.8	8.9	-3.9	22.2	10	-5.0	30	0	10	3.9	76	135	48	63	10	0	0	0	11	35	9.4	NW	21	13	5	12	5.1	55
ALASKA												8																				
ANCHORAGE	35	995.3	1000.2	2.2	-3.8	-0.8	5.3	8.3	28	-10.6	1	0	26	-3.9	79	72	46	16	15	0	282	152	10.6	36	11.2	15	28	3	4	23	8.3	29
ANNETTE	34	1013.9	1018.6	9.1	2.7	5.9	1.5	14.4	12+	-2.2	25+	0	7	2.8	80	255	+72	74	17	1	T	T	25	14	15.6	16	3+	2	8	20	8.2	
BARROW	9	1010.8	1011.3	-13.4	-19.4	-16.4	1.7	-2.8	9	-30.0	2	0	30	-18.9	80	11	4	3	12	0	183	305	7.8	6	14.3	6	27					
BARTER ISLAND	19	1008.1	1010.4	-11.1	-18.9	-15.0	2.7	-3.3	14	-31.7	2	0	30	-16.7	84	8	+4	2	8	0	76	152	1.5	11	26.8	26	29					
BETHEL	38	992.4	998.4	-4.6	-11.4	-8.0	0.2	3.9	3+	-20.6	25	0	30	-10.6	82	12	+12	4	9	0	155	127	2.9	2	13.4	3	26	8	3	19	6.9	
BETTLES	198	981.7	1006.8	-7.1	-14.8	-10.9	7.7	7.2	13	-28.9	4	0	30			37	16	14	10	0	594	660	2.4	36								
BIG DELTA	386			-1.1	-8.6	-4.8	9.1	10.6	30+	-25.0	2	0	25			3	+7	3	2		76	127										
COLD BAY	29	99[illegible].5	993.9	2.1	-3.9	-0.8	-2.1	5.0	13+	-9.4	25+	0	25	-2.2	86	64	+35	13	22	0	264	178	10.9	35	16.1	17	6	0	6	24	8.9	
FAIRBANKS	133	986.1	1003.5	-4.3	-13.6	-8.9	7.3	7.2	13	-27.2	2	0	30	-11.7	79	3	+13	2	6	0	109	229	0.8	2	9.4	9	13+	4	6	20	7.7	
GUSKANA	479			-2.6	-9.6	-6.1	8.3	5.6	30+	-21.7	24	0	27			73	54	51	9		203	152										
HOMER	19			4.3	-0.4	1.9		9.4	27	-6.7	19	0	18			175	105	35	24	0	419	483			14.3	1	20	6	5	23	8.4	
JUNEAU	4	1013.2	1014.0	6.7	3.2	4.9	4.7	12.8	14	-0.6	9	0	1	3.3	89	131	+10	37	27	0	28	T	4.9	11	15.6	12	30+	0	0	30	9.9	5
KING SALMON	15	993.2	995.1	-0.2	-8.4	-4.3	1.2	8.3	26	-20.6	25+	0	27	-5.6	88	52	16	14	20	0	287	127	1.7	6	17.9	9	11	3	3	24	7.9	
KODIAK	4	991.2	995.6	6.3	1.1	3.7	2.2	9.4	29	-4.4	25+	0	10	1.7	84	376	238	58	26	0	216	25	11.1	4	17.4	11	11+	3	2	25	8.5	
KOTZEBUE	3	1004.4	1004.7	-8.1	-14.2	-11.1	2.4	2.8	13	-26.7	25	0	30	-13.3	82	13	3	4	13	0	315	203	2.8	6	16.5	9	7+	7	4	19	7.1	
MC GRATH	105	988.5	1001.5	-6.7	-16.6	-11.6	3.4	1.7	13	-32.2	25	0	30	-12.8	85	45	19	13	15	1	434	381	0.7	32	7.6	10	13	2	10	18	7.4	
NOME	4	1001.4	1002.1	-4.7	-12.8	-8.7	6.4	4.4	13	-26.1	26+	0	30	-12.2	73	15	+10	4	11	0	188	127	3.0	4	14.8	4	13	8	6	16	6.4	43
ST. PAUL ISLAND	7	995.6	996.6	1.5	-2.3	-0.4	-1.1	4.4	6+	-10.0	9	0	24	-3.9	77	24	+42	5	13	0	180	76	3.5	3	21.9	4	26	2	7	21	8.3	
TALKEETNA	105			1.5	-6.8	-2.2	5.8	7.2	14+	-15.6	2	0	28			122	77	31	14	0	361	381			9.4	14	10					
UNALAKLEET	5			-4.7	-11.6	-8.1		5.6	13	-23.9	3+	0	30			7		2	10		91	76			14.3	1	6	9	1	20	7.0	
VALDEZ	7			3.0	-1.1	0.9	4.2	7.2	12	-5.6	4	0	23			523	379		26		1135		10.3	11	16							
YAKUTAT	9	1008.1	1009.1	6.8	2.6	4.7	4.6	13.8	14	-3.3	25	0	6	3.3	92	1085	709	107	30	0	457	203	8.6	17	13.0	12	15	0	0	30	9.8	
ARIZONA																																
FLAGSTAFF	2135	789.4	1019.9	14.4	-6.1	4.2	1.7	21.7	26	-16.1	29	0	30	-9.4	43	3	-31	2	3	0	18	25	1.2	6	11.6	NE	16	24	3	3	1.9	89
PHOENIX	339	977.3	1019.4	25.0	10.6	17.8	2.4	32.8	2	0.6	28	2	0	1.1	36	11	+1	11	2	1	0	0	1.3	18	16.1	W	27	26	4	1	1.2	94
TUCSON	788	927.5	1015.5	22.4	8.7	15.6	0.8	24.3	7+	-1.7	28	0	2	0.6	41	12	+2	9	4	1	0	0	1.4	13	13.4	SE	18	25	3	2	1.5	91
WINSLOW	1492	855.1	1022.3	14.8	-4.7	5.1	-1.1	22.2	10	-17.8	28	0	28	-7.2	48	7	+2	7	2	1	74	76	0.4	19	13.0	22	26	24	4	2	1.8	
YUMA	59	1008.8	1016.	25.6	11.4	18.6	1.1	32.8	4	3.3	30+	2	0	2.2	40	10	4	10	2	0	0	0	2.2	36	15.2	N	27	26	2	2	1.2	98
ARKANSAS																																
FORT SMITH	136	1005.8	1022.9	10.8	-1.7	5.6	-4.7	23.9	26	-13.3	29	0	20	-1.1	66	27	-52	13	6	1	119	102	6.8	34	13.3	SW	26+	16	4	10	4.4	62
LITTLE ROCK	78	1012.9	1022.7	10.9	1.6	7.7	-2.4	22.2	18+	-8.3	29	0	11	-1.1	59	45	-53	15	7	1	25	T	1.2	31	8.4	S	25	16	3	11	4.3	74
CALIFORNIA																																
BAKERSFIELD	145	1001.7	1019.5	20.7	9.7	15.2	1.9	31.1	6	0.6	29+	0	0	7.8	66	8	-10	6	4	0	0	0	0.9	33	8.0	S	27	16	7	6	5.1	
BISHOP	1262	878.1		21.1	-0.7	10.2	2.6	27.2	3	-6.7	30+	0	21			2	-15			0	0	0			24.6Y		26	17	6	7	3.5	
BLUE CANYON	1609	842.9	1019.	16.3	6.4	11.4	4.4	25.6	3	-5.6	27	0	3	-5.6	37	59	-171	56	4		0	0	0.7	10	12.5	S	26					
EUREKA	13			14.5	7.9	11.2	0.3	20.6	10	1.1	27	0	0			76	+71	28	6		0	0			18.1	N	26	4	7	19	7.4	34
FRESNO	100	1008.1	1019.8	17.4	6.3	11.9	-0.1	28.9	6	-2.2	29	0	4	7.2	81	22	-9	16	5	0	0	0	0.4	11	6.7	SW	18	7	7	16	6.6	51
LONG BEACH	8	1015.2	1016.7	16.2	11.8	19.0	3.1	36.1	2	3.9	28	5	0	8.9	64	25	+10	25	2	2	0	0	0.6	29	9.4	S	27	19	7	4	2.8	
LOS ANGELES	30	1012.9	1016.5	24.2	13.4	18.8	3.0	35.6	4	5.6	28	4	0	10.6	67	22	+23	22	2	1	0	0	0.6	26	9.4	W	27+	20	6	4	2.8	
LOS ANGELES	82			25.9	12.8	19.4	2.3	35.6	4	3.9	28	5	0			12	+39	12	3		0	0			5.8	SW	10	17	10	3	3.3	81
MT SHASTA A	1080	897.1	1023.1	14.5	-0.3	7.1	1.7	23.9	4	-11.1	27	0	13	-1.7	63	23	-106	22	2		0	0	0.9	34								
OAKLAND	7	1019.3	1019.4	18.8	9.9	14.4	1.4	25.6	6	3.3	30	0	0	8.9	73	23	+37	12	3	0	0	0	0.6	4	17.9	W	26	1	7	22	5.5	
RED BLUFF	104	1007.1	1020.0	21.4	7.9	14.7	2.6	31.7	3	-1.1	29	0	1	5.0	63	14	+64	11	4	0	0	0	1.1	35	13.9	N	26	7	8	15	6.1	73
SACRAMENTO	6	1018.6	1019.6	19.3	8.1	13.7	2.1	29.4	3	-1.1	28	0	3	6.1	68	14	+40	12	3	0	0	0	0.7	31	13.4	NW	26	8	10	12	5.9	61
SANDBERG R	1377	865.2		16.4	8.4	12.4	3.4	23.9	3	-4.4	28	0	3			14	+38	13	3		0	0			24.1	9	27					
SAN DIEGO	4	1015.6	1016.5	24.7	13.9	19.3	3.3	36.1	4	5.6	28	3	0	8.9	57	19	+13	17	4	1	0	0	0.8	30	8.0	NE	27+	21	4	5	2.7	87
SAN FRANCISCO	2	1018.3	1019.1	18.4	9.3	13.9	0.9	25.6	4+	2.8	30+	0	0	7.2	68	35	+23	21	3	0	0	0	0.6	4	9.8	2	26	8	9	13	5.9	
SAN FRANCISCO	14			19.1	12.4	15.8	1.7	26.1	3	8.3	29+	0	0			26	+40	13	3													
SANTA MARIA	72			23.9	5.8	14.9	1.5	32.2	4	-0.6	29	1	3			6	+29	4	4		0	0						21	5	4	2.6	
STOCKTON	7	1018.6	1019.6	19.2	7.7	13.4	1.8	28.3	5+	-2.2	28	0	3	7.2	73	15	+29	9	4	0	0	0	0.7	18	9.4	W	27+	5	8	17	6.9	
COLORADO																																
ALAMOSA	2297	773.1		8.7	-13.1	-2.2	-1.1	26.1	6	-30.6	28	0	30			5	-1	5	2		66	76						15	8	7	4.2	

CLIMATOLOGICAL DATA

METRIC UNITS

NOVEMBER 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min. 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No of days (sunrise to sunset): Clear, 0-3	No of days (sunrise to sunset): Partly cloudy, 4-7	No of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m s		m s							%
COLORADO																																
COLORADO SPRINGS	1873	813.1	1022.4	9.4	-4.8	2.3	-0.7	22.2	8	-22.2	28	0	23	-8.9	51	10	-1	4	6	0	124	25	1.7	4	17.4	36	26	12	8	10	5.0	
DENVER	1610	838.1	1019.7	11.7	-3.3	4.2	0.1	21.7	8	-19.4	28+	0	21	-7.8	50	8	-11	7	5	0	114	76	0.8	18	13.9	N	26	9	9	12	5.6	70
GRAND JUNCTION	1476	856.4	1022.7	12.0	-4.1	3.9	-0.4	20.0	3	-18.9	28	0	24	-10.0	39	1	-14	1	1	0	T	T	0.6	9	8.0	NW	26	13	11	6	4.3	79
PUEBLO	1428	858.5	1021.7	11.2	-6.7	2.2	-2.7	23.9	8	-25.6	28	0	29	-5.0	68	8	-3	4	5	0	102	25	0.8	5	24.1	NE	26	12	9	9	4.9	82
CONNECTICUT																																
BRIDGEPORT	2	1012.9	1013.3	9.4	2.1	5.8	-2.0	15.6	5	-4.4	30	0	11	0.6	70	9	-88	7	3	0	T	0	4.8	28	13.4	28	22	11	11	8	5.1	
HARTFORD	52	1005.4	1012.2	8.8	-1.9	3.5	-1.7	17.8	27	-10.6	30	0	22	-3.9	60	13	-97	7	3	1	10	T	2.0	26	11.6	NW	18	8	12	10	5.6	57
DELAWARE																																
WILMINGTON	23	1012.5	1015.7	10.0	-0.7	4.7	-2.9	17.8	26+	-9.4	30	0	20	-2.8	62	12	-76	10	7	0	T	T	3.1	28	11.2	32	8	9	12	9	5.3	
DIST.OF COLUMBIA																																
WASHINGTON DULLES	88	1004.7	1016.7	10.4	-3.4	3.5	-3.6	22.2	19	-11.7	30	0	26	-4.4	60	14	-63	11	5	0	20	T	2.0	26	11.2	29	8	11	9	10	5.2	
WASHINGTON NATIONAL	3	1014.6	1016.9	11.2	1.1	6.1	-2.8	23.3	19	-7.8	30	0	13	-1.7	59	22	-52	14	5	0	20	T	2.2	27	13.0	NW	22+	11	6	13	5.4	53
FLORIDA																																
APALACHICOLA U	6	1020.0	1020.5	18.2	7.1	12.7	-3.5	25.0	27	-0.6	9	0	3	7.8	78	82	14	26	9	0	C	0	1.5	4	9.8	N	8	7	8	15	6.5	55
DAYTONA BEACH	9	1018.0	1019.5	21.0	10.7	15.8	-2.6	29.4	28	2.8	25+	0	0	11.1	78	86	32	45	8	0	C	0	1.9	35	10.7	1	8	4	6	20	7.5	
FORT MYERS	5	1018.0	1018.3	24.4	14.2	19.3	-1.5	28.9	27	6.1	23	0	0	14.4	77	53	20	41	5	0	C	0	2.0	3	10.3	34	3	1	14	15	7.2	
JACKSONVILLE	8	1019.3	1020.3	19.0	5.7	12.4	-3.8	26.7	28	-3.9	9	0	5	7.8	76	62	16	30	10	2	C	0	1.4	34	13.0	NE	2	6	7	17	6.5	58
KEY WEST	1	1016.6	1017.2	25.9	21.1	23.6	-0.4	28.9	29+	16.1	30	0	0	19.4	81	13	-55	4	5	0	0	0	3.9	5	16.5	36	3	2	13	15	7.1	61
LAKELAND U	65			23.1	11.9	17.5	-1.8	28.9	28	3.9	30+	0	0			62	21	41	6		C	0						6	9	15	6.8	41
MIAMI	2	1017.6	1017.9	25.3	18.5	21.9	-0.4	28.3	29+	11.7	9	0	0	18.3	81	68	-1	39	6	0	C	0	2.3	2	10.7	34	3	2	11	17	7.4	
ORLANDO/MC COY AFB	29	1015.2	1019.1	23.4	11.0	17.2	-2.0	29.4	28	2.8	25+	0	0	11.7	75	52	12	27	8	1	C	0	2.0	36	11.6	36	3	4	6	20	7.7	
PENSACOLA	34	1016.9	1021.1	16.4	5.3	10.8	-4.4	23.9	7	-3.9	30	0	5	4.4	70	143	58	53	10	1	C	0	2.1	1	9.8	35	29	14	2	14	5.2	
TALLAHASSEE	17	1018.3	1020.7	18.7	4.9	11.8	-3.1	25.0	11	-6.1	9	0	10	6.1	74	265	194	126	10	1	C	0	1.4	1	8.0	36	8+	8	8	14	6.2	
TAMPA	6	1019.0	1019.2	22.8	11.4	17.1	-2.2	28.3	26	1.7	24	0	0	10.6	71	40	-5	31	9	1	C	0	1.8	3	9.4	34	29	4	4	22	7.9	34
WEST PALM BEACH	5	1017.3	1017.9	25.5	17.4	21.4	-0.2	31.7	29	10.0	23	0	0	16.7	76	84	21	67	7	0	C	0	1.7	1	12.5	35	8	0	11	19	7.8	
GEORGIA																																
ATHENS	244	990.2	1019.5	14.2	2.5	8.4	-2.5	22.2	18+	-7.2	30	0	10	0.0	62	133	47	75	9	0	T	T	1.8	28	9.4	28	21	18	1	11	4.5	
ATLANTA	308	982.4	1019.8	12.8	0.7	6.8	-4.0	21.1	10	-8.3	30	0	15	-1.1	63	104	17	44	9	0	C	0	2.1	30	10.3	28	21	14	4	12	4.8	61
AUGUSTA	41	1014.2	1019.7	16.0	2.2	9.1	-2.9	23.9	11	-5.0	23	0	13	2.2	68	92	36	36	9	0	C	0	1.3	28	9.8	32	8	16	3	11	4.5	
COLUMBUS	117	1006.4		15.8	2.7	9.3	-3.2	23.3	10	-6.1	30	0	10	3.3	74	143	68	62	11	0	C	0	1.1	33	9.4	36	22	13	6	11	4.9	
MACON	108	1007.5	1020.5	16.4	3.2	9.8	-3.1	23.9	11+	-5.6	30	0	11	3.3	72	89	29	46	10	0	C	0	1.4	31	9.8	NW	21	14	5	11	4.8	59
ROME	194			13.4	-0.6	6.4	-3.3	21.7	18+	-10.6	30	0	19			84	-11	40	8		T	T										
SAVANNAH	14	1018.3	1020.1	16.8	4.8	10.8	-3.1	26.1	28	-3.3	9	0	6	3.3	65	123	73	56	8	0	C	0	1.5	30	13.0	W	5	12	6	12	5.5	60
HAWAII																																
HILO	8	1013.9	1015.1	27.0	20.2	23.6	0.6	30.6	2	17.2	19	0	0	18.3	75	184	-166	62	25	0	C	0	0.8	34	8.0	NW	17+	3	12	15	7.0	35
HONOLULU	2	1014.9	1015.2	28.6	19.5	24.1	-0.7	30.6	10	16.7	29+	0	0	15.6	62	12	-64	6	8	0	C	0	2.4	5	13.4	NE	3	5	13	12	6.4	53
KAHULUI	15	1012.5	1014.9	28.6	18.9	23.8	-0.3	31.1	1	16.1	22	0	0			49	-10	14	13	0	C	0	2.9	5	15.2	SW	24	5	16	9	5.4	62
LIHUE	31	1011.2	1016.3	26.8	19.6	23.2	-0.8	28.3	28	16.7	26	0	0	17.8	73	31	-112	8	13	0	C	0	3.2	4	12.1	SW	24	3	18	9	6.3	63
IDAHO																																
BOISE	865	922.1	1024.8	11.4	-1.6	4.9	0.6	18.9	3	-13.9	28	0	18	-2.8	64	4	-30	2	3	0	T	0	0.5	10	13.9	NW	25	9	8	13	5.9	69
LEWISTON	431			10.3	2.4	6.4	1.7	17.8	17	-7.8	28	0	10			6	-26	10	2		5	T			19.7Y		25	0	4	26	9.0	
POCATELLO	1358	868.3	1024.5	11.0	-4.7	3.2	1.1	20.0	7+	-18.9	27	0	24	-6.1	57	T	-26	T	1	0	5	T	1.3	23	17.0	SW	25	7	11	12	6.0	72
ILLINOIS																																
CAIRO U	96			9.8	-0.3	4.8	-4.3	18.3	18	-10.6	29	0	18			29	-69	27	4		13	T			15.2	SW	25					65
CHICAGO O HARE	201	992.2	1017.4	5.5	-5.1	0.2	-3.8	16.1	2	-17.2	29	0	27	-6.7	63	17	-37	15	4	0	13	T	3.4	26	12.5	33	4	10	9	11	5.6	
CHICAGO MIDWAY	185	994.6	1018.0	5.3	-4.5	0.4	-4.2	17.2	2	-17.8	29	0	26	-6.7	61	14	-42	13	5	2	20	T	3.6	26	11.6	S	26	11	8	11	5.2	60
MOLINE	177	997.3	1019.6	5.0	-7.1	-1.1	-5.1	18.9	18	-22.8	29	0	28	-8.3	59	17	-31	15	4	0	196	102	3.4	28	11.6	SW	17+	12	10	8	4.6	71
PEORIA	199	994.9	1019.6	6.1	-6.1	0.0	-4.4	18.9	18	-17.8	29	0	27	-6.7	64	21	-30	20	3	0	10	T	2.9	26	11.2	88	7+	10	12	8	4.8	78
ROCKFORD	221	990.5	1018.5	3.9	-8.3	-2.2	-5.3	16.1	18+	-21.1	29	0	29	-8.3	66	10	-51	8	4	0	114	102	2.9	28	12.1	30	9	10	8	12	5.3	
SPRINGFIELD	179	997.6	1020.5	7.8	-4.9	1.4	-4.1	21.1	18	-15.0	29	0	26	-5.0	67	13	-41	13	2	0	T	T	2.9	26	13.9	NW	7	10	13	7	4.6	73
INDIANA																																
EVANSVILLE	116	1006.8	1021.2	9.5	-2.1	3.7	-3.4	18.9	18	-12.2	30	0	23	-5.0	55	27	-54	25	2	0	8	T	1.9	28	11.6	S	25	12	10	[illegible]	4.5	64

CLIMATOLOGICAL DATA

METRIC UNITS

NOVEMBER 1976

State and Station	Elevation ground	Pressure: Station O	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32°C or above	Temperature: No. of days: Min 0°C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
INDIANA																																
FORT WAYNE	241	986.8	1017.5	5.9	-4.3	0.8	-3.7	15.0	25+	-13.9	29	0	28	-5.6	66	16	-52	13	4	0	52	25	4.3	25	12.1	SW	27+	5	12	13	6.5	66
INDIANAPOLIS	241	989.2	1019.2	6.9	-4.0	1.5	-3.9	15.6	2	-13.9	30+	0	27	-4.4	70	21	-58	17	4	0	10	T	3.2	26	12.1	SW	26+	12	9	9	5.1	67
SOUTH BEND	236	987.8	1016.7	4.7	-3.3	0.7	-3.6	13.9	2	-14.4	29	0	27	-3.3	74	82	13	35	12	0	549	203	3.8	25	9.8	24	29+	5	9	16	6.9	
IOWA																																
BURLINGTON	211			6.3	-5.8	0.2	-4.1	21.7	18	-18.9	29	0	27	-7.2	59	11	-30	10	2	0	76	25	2.9	28	16.1	23	26	13	13	4	4.0	
DES MOINES	284	984.4	1020.5	6.4	-5.7	0.3	-2.9	21.7	18	-18.3	30+	0	26	-8.9	54	3	-34	2	3	0	28	25	2.5	29	13.0	NW	9	8	16	6	5.1	71
DUBUQUE	322	978.7		3.3	-8.1	-2.3	-4.5	16.7	18	-23.9	29	0	28			9	-54	7	6		94	51										
SIOUX CITY	334	980.4	1021.6	5.6	-8.5	-1.4	-3.8	18.3	18+	-20.0	29+	0	28	-8.9	63	1	-22	1	1	0	10	T	2.5	31	16.1	NW	3	12	7	11	5.1	69
WATERLOO	265	986.8	1019.8	3.1	-9.1	-3.0	-4.7	15.6	18	-21.1	30+	0	29	-10.0	61	2	-37	1	4	0	18	T	3.2	30	12.5	32	9	7	11	12	5.7	
KANSAS																																
CONCORDIA	448	967.8	1022.2	9.1	-4.9	2.1	-3.1	22.2	18	-20.0	28	0	23	-6.1	58	2	-18	2	1	0	38	51	1.6	28	13.9	N	26	17	7	6	4.0	85
DODGE CITY	787	924.9	1021.8	12.3	-3.8	4.2	-1.8	24.4	6	-16.1	28	0	23	-5.0	58	4	-11	4	1	0	43	51	1.3	36	16.5	N	26	15	10	5	3.7	79
GOODLAND	1114	891.3	1021.8	10.1	-6.4	1.9	-1.7	21.1	5+	-22.2	28+	0	28	-7.8	57	10	-3	8	3	0	132	102	1.9	28	14.8	35	26	13	7	10	4.5	
TOPEKA	267	989.8	1022.7	9.4	-5.7	1.9	-4.2	26.1	18	-16.7	29+	0	26	-6.7	58	1	-31	1	1	0	8	T	1.5	27	12.5	NW	21	13	14	7	4.5	73
WICHITA	403	973.6	1022.8	11.0	-4.0	3.5	-3.6	23.3	18	-15.0	28	0	24	-5.0	59	2	-28	2	2	0	8	T	0.7	32	14.3	N	27+	18	6	6	3.4	80
KENTUCKY																																
COVINGTON	265	986.5	1019.1	7.1	-3.8	1.6	-4.9	15.6	25	-17.2	30	0	28	-5.6	61	21	-57	15	5	0	69	51	3.1	26	10.7	21	26	13	7	10	5.1	
LEXINGTON	294	983.4	1019.8	8.2	-2.5	2.8	-4.2	17.8	27	-15.6	30	0	25	-4.4	63	11	-74	6	6	0	74	51	2.4	23	10.3	20	25	11	9	10	5.2	
LOUISVILLE	145	1001.7	1019.9	9.6	-1.3	4.2	-3.1	17.2	27+	-13.9	30	0	21	-3.3	61	18	-66	13	3	0	41	51	2.3	26	10.7	SW	25	12	7	11	5.0	71
LOUISIANA																																
ALEXANDRIA	28	1018.3	1022.4	16.3	3.4	9.9	-3.2	25.6	10	-7.8	30	0	6	4.4	73	86	-28	31	9	1	T	T	1.1	36	8.9	35	12	11	5	14	5.4	
BATON ROUGE	20	1019.3	1022.1	17.2	4.3	10.8	-4.0	26.1	11	-6.1	30	0	5	5.0	73	127	29	53	10	1	T	T	1.3	1	10.3	35	28	11	4	15	5.6	
LAKE CHARLES	3	1021.0	1022.2	17.2	5.3	11.3	-4.4	26.1	11	-5.0	30	0	3	5.0	70	131	27	49	10	1	T	0	1.6	3	10.3	2	11	12	4	14	5.8	
NEW ORLEANS	1	1021.7	1021.4	17.2	5.8	11.5	-4.1	26.7	11	-1.7	30+	0	4	6.7	74	147	49	51	10	0	0	0	1.8	2	8.9	36	29	10	5	15	6.0	59
SHREVEPORT	77	1013.2	1022.7	16.6	2.8	9.6	-3.8	27.2	10	-8.9	29	0	10	3.9	74	41	-49	15	9	0	T	T	0.7	33	8.9	5	13	14	3	13	5.1	59
MAINE																																
CARIBOU	190	982.1		0.1	-7.9	-3.6	-3.2	5.6	28	-17.2	30	0	29			59	-30	21	12		259	127						5	6	19	7.5	
PORTLAND	13	1007.5	1009.7	7.3	-2.8	2.3	-1.4	16.1	27	-9.4	30	0	24	-5.0	63	29	-101	11	8	0	38	T	2.7	28	12.5	NW	20	7	14	9	5.4	64
MARYLAND																																
BALTIMORE	45	1010.5	1010.4	10.7	-0.9	4.9	-2.9	21.7	9	-9.4	30	0	23	-2.8	58	14	-65	11	4	0	26	25	2.2	29	14.8	W	22	12	7	11	5.2	67
MASSACHUSETTS																																
BLUE HILL OBS R	192			7.0	-1.2	2.9	-2.8	16.1	27	-8.9	30	0	21			14	-115	8	4		41	25			20.1	NW	19					64
BOSTON	5	1010.5	1011.4	9.3	1.7	5.5	-1.8	18.9	27	-5.0	30	0	12	-2.8	57	16	-98	8	3	0	25	25	4.3	27	14.8	NW	6	16	7	7	4.4	59
WORCESTER	301	973.6		5.4	-2.5	1.4	-2.9	16.1	27	-11.1	30	0	24	-5.0	63	17	-101	8	4	0	76	76	3.8	28	12.1	29	20	1	11	8	5.4	
MICHIGAN																																
ALPENA	210	986.5	1012.4	3.1	-4.9	-0.9	-2.5	11.7	2	-18.3	29	0	28	-5.6	73	20	-42	13	10	0	203	102	3.0	26	8.9	W	22	3	7	20	7.4	41
DETROIT	180			6.1	-0.5	2.8	-2.2	14.4	27	-10.0	30+	0	20			0							4.7	25	11.2	26	30+					
DETROIT METRO	193	990.5	1015.3	5.9	-4.3	0.8	-3.7	13.9	27	-12.2	30	0	27	-5.0	68	20	-39	15	7	0	36	25	4.8	26	13.4	NW	27	8	9	13	6.1	51
FLINT	235	985.8	1014.3	4.7	-3.3	0.7	-2.8	12.8	26+	-14.4	29	0	26	-4.4	69	31	-27	24	8	0	61	25	3.8	26	10.3	29	19	5	9	16	6.9	
GRAND RAPIDS	239	985.4	1015.3	4.1	-4.7	-0.3	-4.0	12.8	26	-13.3	30+	0	28	-4.4	74	38	-33	29	10	1	216	102	3.5	25	13.4	W	6	5	3	22	7.8	40
HOUGHTON LAKE	360	978.2	1013.3	1.3	-5.5	-2.1	-3.4	9.4	2+	-17.8	29	0	29	-5.6	78	19	-45	8	12	0	345	102	3.4	27	9.8	27	13	6	6	18	7.3	
LANSING	256	982.4	1015.0	4.2	-4.7	-0.2	-3.8	12.8	26+	-15.6	29	0	28	-3.9	79	26	-31	17	12	0	117	51	3.4	26	13.0	SW	17	5	5	20	7.1	37
MARQUETTE	206			1.4	-4.7	-1.6	-2.9	10.6	2	-18.9	30+	0	26			43	-33	15	17		447	203			10.7	S	9					41
MUSKEGON	191	991.9	1015.3	3.9	-2.7	0.6	-3.4	17.2	26	-12.2	29	0	22	-3.9	71	38	-39	11	15	0	500	127	3.4	28	11.2	21	17	4	2	24	8.1	
SAULT STE MARIE	220	984.1	1011.2	1.1	-6.3	-2.6	-3.1	8.9	2	-23.3	29	0	29	-5.0	81	63	-20	10	21	0	869	381	2.1	29	13.0	NW	22	2	5	23	8.5	30
MINNESOTA																																
DULUTH	435	963.1	1016.4	-1.4	-9.6	-5.5	-3.5	10.0	18+	-25.6	30	0	29	-11.7	63	5	-39	3	6	0	69	51	3.3	29	14.3	W	18	11	2	17	6.0	43
INTERNATIONAL FALLS	356	971.6	1016.4	-2.3	-11.6	-6.9	-3.0	13.3	1	-30.6	30	0	30	-11.1	71	5	-28	2	6	0	97	25	2.7	28	13.0	29	2	7	7	16	6.8	
MINNEAPOLIS	254	987.1	1018.8	3.1	-7.2	-2.1	-2.3	16.1	18	-21.1	30	0	28	-10.6	54	4	-26	2	6	0	36		2.9	29	13.0	NW	2	11	4	15	5.7	67
ROCHESTER	395	969.2	1018.7	2.2	-10.1	-3.9	-4.3	15.0	18	-23.9	30	0	29	-10.0	67	3	-23	3	2	0	48	25	3.9	29	14.3	30	2	6	9	15	6.3	
ST CLOUD	313	980.4	1019.4	1.1	-10.9	-4.9	-3.8	13.3	18+	-25.6	30	0	29			4	-25	3	2		23	25						12	4	14	5.3	

CLIMATOLOGICAL DATA

METRIC UNITS

NOVEMBER 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
MISSISSIPPI																																
JACKSON	94	1009.8	1022.0	14.9	2.0	8.4	-4.5	23.9	27+	-8.3	30	0	15	2.8	74	85	-13	32	8	1	5	T	0.7	35	9.4	36	28	14	3	13	5.0	59
MERIDIAN	88	1010.8	1022.1	15.2	0.8	8.0	-4.3	22.8	10	-8.9	30	0	16	1.7	73	90	1	28	8	0	T	0	0.9	31	8.0	18	26+	14	3	13	5.0	
MISSOURI																																
COLUMBIA REGIONAL	270	988.2	1021.3	7.6	-4.5	1.6	-5.1	21.7	18	-15.0	29	0	24	-5.6	63	22	-23	20	3	1	33	25	2.1	27	14.8	SW	25	12	12	6	4.5	75
KANSAS CITY	309	983.7	1021.9	8.2	-3.9	2.2	-4.3	25.6	18	-17.2	28	0	21	-6.1	61	5	-32	5	2	0	56	25	1.6	27	13.4	SW	25+	13	13	4	4.2	70
ST JESEPH	247			8.5	-5.7	1.4	-4.3	24.4	18	-18.9	29	0	27			5	-27	4	2		25	25										
ST LOUIS	163	1000.7	1021.5	8.8	-3.3	2.8	-4.4	25.6	18	-13.3	29	0	22	-3.9	66	19	-44	17	4	0	8	T	2.7	28	13.0	NW	7	15	9	6	4.2	72
SPRINGFIELD	386	975.3	1021.9	10.9	-4.1	3.4	-4.1	23.3	18	-14.4	30+	0	21	-5.6	56	6	-54	5	3	0	8	0	1.2	26	13.0	SW	25	15	8	7	4.3	67
MONTANA																																
BILLINGS	1087	895.0	1022.2	8.4	-4.8	1.8	-0.3	18.9	4	-19.4	27	0	23	-7.8	52	17	-1	11	4	0	178	127	3.0	26	17.9	NW	30	9	11	10	5.5	55
GLASGOW	696	938.0	1022.9	4.0	-10.2	-3.1	-1.4	19.4	4	-25.6	27	0	30	-10.0	64	7	-3	5	6	0	58	25	1.1	34	16.5	SW	30	10	8	12	5.5	
GREAT FALLS	1116	892.7	1023.2	8.3	-3.2	2.6	1.1	17.8	17	-17.2	27	0	21	-6.7	53	17	-4	11	4	0	224	152	4.3	23	18.8	SW	17	7	8	15	6.4	52
HAVRE	788	927.5	1022.4	7.6	-9.6	-1.0	0.1	24.4	4	-24.4	27	0	27	-8.9	60	10	-1	6	5	0	102	76	1.7	25	16.1	SW	17	10	11	9	5.1	62
HELENA	1167	886.6	1025.8	7.7	-5.7	1.0	1.2	18.3	17	-15.0	26	0	28	-6.7	59	8	-8	7	3	0	74	51	1.7	28	19.2	W	24	6	11	13	6.5	46
KALISPELL	904	919.1	1026.9	4.6	-5.4	-0.4	0.3	15.0	17	-18.9	27	0	25	-3.9	80	12	-23	8	10	0	58	25	0.3	27	13.0	4	25	4	4	22	8.2	
MILES CITY	801	926.5	1022.5	5.7	-8.6	-1.4	-1.7	18.3	17	-25.6	28	0	28	-8.3	63	5	-8		4	0	43		1.7	31								
MISSOULA	972	911.6	1027.0	5.7	-5.4	0.2	0.0	13.9	17+	-17.8	27	0	24	-3.3	79	6	-19	3	6	0	30	25	0.5	32	14.8	NW	25	5	4	21	7.7	37
NEBRASKA																																
GRAND ISLAND	561	953.9	1022.1	8.9	-7.6	0.7	-2.8	23.9	8	-23.9	28	0	27	-9.4	54	3	-12	3	2	0	28	25	2.4	30	13.4	33	21	11	11	8	4.4	
LINCOLN	359	978.0	1022.0	7.9	-7.8	0.1	-3.8	23.3	18	-20.6	29	0	26	-8.3	58	1	-21	1	2	0	10	T	2.0	31	16.1	N	26	11	12	7	4.7	75
NORFOLK	471	963.8	1021.3	6.7	-8.0	-0.7	-3.1	21.1	8	-21.1	28	0	28	-11.1	50	2	-14	2	2	0	25	25	3.2	32	17.4	33	9	13	10	7	4.4	
NORTH PLATTE	846	921.8	1022.8	9.0	-10.7	-0.8	-3.2	23.3	1	-25.0	28	0	30	-10.0	56	2	-11	1	2	0	15	25	1.7	32	14.8	NW	30	14	6	10	4.9	71
OMAHA	298	985.1	1021.6	8.1	-6.7	0.7	-3.7	22.2	18	-20.0	28	0	26	-6.7	61	1	-27	1	2	0	13	T	1.7	32	14.3	NW	26+	12	11	7	4.2	66
SCOTTSBLUFF	1206	882.8	1022.3	9.7	-6.7	1.5	-0.8	21.7	5	-23.9	27	0	27	-8.9	53	9	-1	5	4	0	137	102	2.4	32	13.0	1	26	8	10	12	6.1	
VALENTINE	789	927.2		6.8	-10.9	-2.1	-3.5	21.7	1	-27.8	28	0	30			2	-9	2	2		38	25	2.3	31	17.9	NW	30	12	11	7	4.7	73
NEVADA																																
ELKO	1539	850.0	1024.7	12.9	-6.6	3.2	1.6	21.1	3	-18.3	27	0	29	-8.3	52	7	-19	7	1	0	13	0	0.2	30	9.4	32	25	13	8	9	4.7	
ELY	1906	813.1	1023.6	13.2	-8.1	2.6	1.5	21.7	7+	-21.1	28	0	30	-12.8	40	4	-13	4	1	0	36	0	1.3	20	10.7	N	26	15	5	10	4.4	82
LAS VEGAS	659	942.1	1018.9	22.3	6.6	14.4	2.6	29.4	3	-5.6	28	0	4	-3.9	31	1	-10	1	1	1	0	0	0.8	26	14.8	NW	27	21	5	4	2.2	95
RENO	1342	871.0	1023.2	16.6	-5.1	5.8	1.3	24.4	5	-13.9	28	0	29	-5.0	55	2	-15	2	1	0	0	0	0.2	14	8.9	N	25	10	12	8	4.7	86
WINNEMUCCA	1311	874.4	1024.0	16.9	-6.1	5.4	2.5	25.0	7+	-17.8	28	0	28	-6.1	51	4	-21	4	1	0	T	T	0.3	11	11.2	NE	12	12	7	11	5.0	80
NEW HAMPSHIRE																																
CONCORD	104	998.0	1010.8	5.7	-6.1	-0.2	-3.5	18.3	27	-15.0	30+	0	26	-5.0	71	19	-82	8	6	0	79	76	2.1	28	13.0	NW	20	10	8	12	5.7	61
MT WASHINGTON OBS	1909			-8.8	-14.6	-11.7	-5.3	1.7	27	-23.9	30	0	30			346	151	73	29	0	1933	432			49.6	W	20	1	3	26	9.2	10
NEW JERSEY																																
ATLANTIC CITY	20	1012.9	1015.4	9.9	-1.5	4.2	-3.6	17.8	26	-10.6	30	0	23	-3.9	60	17	-90	17	4	0	T	T	3.4	27	12.5	29	18	11	10	9	5.0	55
ATLANTIC CITY U	3			9.1	1.6	5.3	-3.8	16.7	19	-6.1	30	0	13			24	-70	19	5						13.0	WNW	18+					
NEWARK	9	1013.2	1014.2	8.4	0.3	4.4	-3.5	16.1	27+	-8.9	30	0	17	-3.9	58	13	-79	6	3	1	T	0	3.3	27	11.2	31	1	7	15	8	5.6	
TRENTON U	17			8.8	1.1	4.9	-3.0	17.8	26	-9.4	30	0	13			8	-75	7	4		T	T			15.2	NW	18	8	14	8	5.3	62
NEW MEXICO																																
ALBUQUERQUE	1619	840.8	1020.8	13.2	-3.7	4.8	-2.2	22.2	2	-21.7	29	0	24	-7.2	49	6	-1	6	1	0	61	51	1.2	9	18.8	E	27	22	5	3	2.3	87
CLAYTON	1515			11.7	-4.6	3.6	-2.2	24.4	18	-23.3	27	0	22			6	-2	5	4		99	76										
ROSWELL	1112	894.0	1020.8	13.6	-1.7	5.9	-2.3	24.4	6	-15.6	29	0	16	-1.7	65	10	3	9	4	0	104	102	0.1	16	13.4	E	26	17	7	6	3.5	74
NEW YORK																																
ALBANY	84	1002.4	1013.1	6.2	-2.9	1.6	-2.6	16.7	27	-13.3	30	0	22	-3.3	71	36	-36	11	7	0	145	51	2.8	26	11.6	NW	19+	3	10	17	7.5	33
BINGHAMTON	485	953.9	1014.1	2.9	-3.9	-0.5	-3.9	15.0	27	-16.1	30	0	27	-5.0	75	28	-50	14	10	0	264	102	3.9	26	12.1	W	18	4	6	20	7.4	33
BUFFALO	215	987.1	1013.4	4.4	-2.1	1.2	-3.2	15.0	27	-12.2	30	0	24	-3.3	72	54	-41	26	12	0	795	533	4.6	24	16.1	SW	6	3	8	19	7.8	29
NEW YORK U	40	1011.2	1014.4	8.7	2.0	5.4	-3.2	16.1	27	-8.3	30	0	11	-3.3	55	9	-87	8	2	0	T	0	2.7	30	9.4	NW	18+					55
NEW YORK KENNEDY	4	1013.5	1014.3	8.3	1.3	4.8	-3.2	14.4	5	-7.2	30	0	12	-2.2	63	8	-91	8	2	0	T	0	4.4	28	12.5	30	10	9	14	7	5.1	
NEW YORK LA GUARDIA	3	1013.2	1014.3	9.2	2.9	6.1	-2.4	16.7	5	-7.8	30	0	6	-3.9	51	8	-88	7	2	0	T	0	4.0	27	13.9	NW	1	8	15	7	5.5	
ROCHESTER	167	993.2	1013.8	5.8	-2.1	1.9	-2.8	18.3	27	-12.2	30	0	23	-2.2	76	11	-61	5	7	0	165	76	4.6	24	17.4	SW	27	3	10	17	7.6	30

CLIMATOLOGICAL DATA

METRIC UNITS

NOVEMBER 1976

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear 0-3	No. of days (sunrise to sunset): Partly cloudy 4-7	No. of days (sunrise to sunset): Cloudy 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
NEW YORK																																	
SYRACUSE	125	998.0	1013.0	5.5	-1.9	2.1	-2.9	17.8	27	-15.0	30	0	21	-2.2	73	39	-44	13	17	1	658	229	4.1	24	14.8	NW	19	2	6	22	8.4	23
NORTH CAROLINA																																	
ASHEVILLE	652	941.1	1018.8	11.7	-1.4	5.1	-2.8	19.4	10	-10.0	30	0	21	-2.8	64	40	-35	20	8	0	T	T	2.4	34	14.3	25	8	15	5	10	4.7	61
CAPE HATTERAS R	2	1017.6	1017.9	14.4	5.5	9.9	-3.4	21.7	29	-3.3	14	0	2	4.4	71	78	-35	39	7	0	0	0	2.0	32	10.3	24	10	11	7	12	5.2	57
CHARLOTTE	224	991.2	1019.0	12.7	0.7	6.7	-3.8	20.6	18	-6.7	30	0	16	-0.6	64	86	16	47	9	0	T	0	0.8	27	10.3	SW	29+	16	4	12	4.7	61
GREENSBORO	273	986.1	1018.4	12.1	-1.2	5.4	-3.6	22.8	19	-8.9	30	0	22	-1.7	65	43	-24	28	7	0	T	0	1.6	27	13.0	NW	8	11	7	12	5.4	59
RALEIGH	132	1002.4	1018.4	12.4	-0.8	5.8	-4.2	21.7	19	-8.9	9	0	20	-1.7	64	48	-24	21	7	0	T	0	1.2	26	9.4	S	29+	16	3	11	4.7	60
WILMINGTON	9	1017.6	1018.9	16.2	3.4	9.8	-3.3	23.9	10	-5.0	9	0	9	3.3	70	54	-22	23	10	0	T	0	1.5	30	12.1	SW	29	15	3	12	4.9	61
NORTH DAKOTA																																	
BISMARCK	502	959.7	1021.7	3.8	-10.1	-3.1	-1.4	21.1	1	-20.0	29	0	30	-10.6	69	4	-10	2	3	0	84	76	2.5	31	14.8	N	18	11	12	7	5.0	58
FARGO	273	985.1	1019.4	0.4	-10.2	-4.9	-3.0	15.0	1	-25.0	28	0	29	-12.2	61	7	-12	4	3	0	69	25	2.8	30	17.9	NW	18	10	6	14	5.8	55
WILLISTON	579	950.9	1022.3	3.1	-11.6	-4.3	-2.1	17.2	1	-25.6	28	0	28	-10.6	64	8	-6	5	5	0	74	51	2.6	29	14.8	NW	30	9	11	10	5.1	57
OHIO																																	
AKRON	368	971.2	1016.8	5.1	-3.8	0.7	-4.2	16.1	27	-16.7	30	0	26	-4.4	70	16	-48	5	14	0	178	76	4.0	25	11.2	W	26	7	9	14	6.2	
CINCINNATI AP&E DB	232			7.8	-1.6	3.2	-3.8	15.6	25	-12.2	30	0	22			14	-64	12	3						8.9	SW	26+						59
CLEVELAND	237	986.8	1016.9	5.9	-4.1	0.9	-4.4	16.1	27	-16.1	30	0	27	-4.4	70	20	-50	5	13	0	226	76	3.8	24	10.3	SW	9+	5	7	18	6.9	46
COLUMBUS	247	967.5	1018.3	5.8	-3.7	1.1	-4.3	15.0	27	-15.0	30	0	26	-5.6	64	15	-53	10	7	0	79	51	2.7	25	12.5	SW	9	8	12	10	6.1	49
DAYTON	303	981.0	1018.2	6.8	-3.3	1.8	-3.7	13.9	27+	-15.0	29	0	27	-4.4	66	22	-43	18	7	0	66	25	3.7	26	14.3	SW	9	7	13	10	5.8	52
MANSFIELD	395			4.1	-4.9	-0.4	-5.9	13.9	27	-16.7	30	0	28			18	-46	14	11	0	119	51			13.0	SW	26+	7	6	17	6.6	
TOLEDO	204	996.5	1016.5	5.4	-5.1	0.2	-4.1	14.4	27	-13.3	30	0	28	-5.6	67	14	-45	9	8	0	33	T	3.9	26	14.8	W	27	4	12	14	6.7	42
YOUNGSTOWN	359	972.6	1016.2	4.5	-4.1	0.2	-4.4	16.1	27	-17.2	30	0	28	-5.6	66	24	-52	6	15	1	226	51	3.8	25	10.7	SW	7	5	8	17	6.9	
OKLAHOMA																																	
OKLAHOMA CITY	392	974.9	1022.5	13.6	-0.4	6.6	-2.9	25.6	6	-10.6	30+	0	17	-2.2	58	3	-33	2	3	1	8	T	0.3	27	15.2	N	27+	16	6	8	3.9	66
TULSA	198	997.6	1022.5	13.2	-0.8	6.2	-3.5	23.3	18+	-12.2	29	0	15	-2.8	57	17	-30	16	2	0	13	T	0.4	27	12.5	NW	26	16	8	6	3.8	62
OREGON																																	
ASTORIA	2	1021.0	1021.9	13.5	4.3	8.9	0.8	19.4	3	-3.9	27	0	6	4.4	76	37	-212	15	7	0	0	0	1.4	8	10.7	E	24	4	8	18	7.2	
BURNS	1265			13.3	-3.5	4.9	2.8	21.7	5	-13.9	28	0	25			8	-29	7	2		T	T			17.9	NW	25	14	6	10	4.8	
EUGENE	109	1008.5	1022.3	12.9	4.3	8.7	1.1	21.7	16	-6.1	28	0	5	6.1	87	34	-132	12	8	1	0	0	0.4	1	7.6	E	26+	1	5	24	8.7	
MEDFORD	396	974.3	1023.0	11.5	1.3	6.4	-0.1	18.9	1	-8.9	27	0	13	3.9	89	11	-68	6	5	1	0	0	0.2	25	5.4	SE	27+	3	1	26	8.6	
PENDLETON	452	970.5	1025.5	9.6	2.3	5.9	0.7	18.9	16	-8.3	30+	0	11	2.2	80	5	-33	2	6	0	0	0	0.6	29	13.4	SE	25	2	4	24	8.1	
PORTLAND	4	1021.3	1022.7	13.4	3.9	8.3	0.9	20.0	16+	-5.6	28+	0	7	4.4	81	20	-123	9	8	1	0	0	0.8	12	13.9	E	20	2	9	19	7.6	47
SALEM	60	1014.6	1022.6	13.4	2.1	7.7	0.4	19.4	12+	-6.1	30+	0	8	4.4	83	29	-126	14	7	0	0	0	0.4	21	8.5	SE	17	5	7	18	7.3	
SEXTON SUMMIT R	1169	887.9	1020.3	13.5	6.5	10.0	4.9	21.1	4+	-3.9	27	0	3			19	-124	8	5		0	0			12.5	E	13	28+					
PACIFIC AREA																																	
GUAM TAG AC R	110			29.6	22.3	26.0	-0.2	30.6	18+	20.6	6	0	0			201	-15	70	29		0	0			11.6	E	6	0	15	15	7.5	55
JOHNSTON	2	1012.9	1013.4	27.8	23.7	25.8	-0.5	28.9	10+	21.7	27	0	0	21.1	77	54	-4	40	12	0	0	0	8.2	7	17.9	E	19	11	8	10	6.5	72
KONOR R	29	1004.7		31.6	24.8	28.2	0.5	33.3	12	23.3	17	14	0			160	-111	58	21	1	0	0	1.2	8	11.1	NE	6	0	11	19	8.2	57
KWAJALEIN	2	1008.5		30.1	25.1	27.6	0.0	31.1	18	23.3	29	0	0			148	-144	28	26	1	0	0	5.9	8	11.2	E	23+	0	9	21	8.2	
MAJURO	3	1008.8		29.5	24.1	26.8	-0.6	30.6	17+	22.2	19	0	0			323	-68	65	25		0	0	4.6	7	12.5	E	18	0	8	22	8.4	49
PAGO PAGO	4	1009.5	1009.8	30.1	24.3	27.2	0.6	31.1	29+	22.8	11+	0	0	23.9	84	310	48	81	17	10	0	0	2.3	7	10.7	E	10	0	15	15	7.9	45
PONAPE R	37			31.0	23.9	27.1	0.3	32.8	5	21.7	9+	5	0			669	233	136	28	6	0	0			7.6	NE	30+	0	7	23	8.6	67
TRUK MOEN ISLAND	2	1008.5		30.5	24.6	27.6	0.2	31.7	27+	22.2	3	0	0			409	104	87	26	0	0	0	0.7	7	11.6	NE	3	1	1	28	9.6	35
WAKE	9	1014.9	1015.0	29.9	24.4	27.2	0.3	31.7	1	22.8	23+	0	0	22.8	78	62	-15	32	17	0	0	0	8.7	20	16.1	E	19	12	15	3	4.4	65
YAP R	13	1006.4		30.6	23.4	27.0	-0.5	31.7	21+	22.2	24+	0	0			226	-29	78	25	1	0	0	2.2	9	8.9	NE	30+	0	15	15	7.6	60
PENNSYLVANIA																																	
ALLENTOWN	118	1001.0	1015.8	7.8	-1.6	3.1	-2.6	16.1	27	-11.7	30	0	23	-3.3	64	17	-74	12	4	0	10	T	3.8	27	12.5	SE	22	6	15	9	6.5	
ERIE	223	988.2	1015.5	4.5	-2.1	1.2	-3.3	15.6	27	-13.9	30	0	22	-3.3	75	54	-40	12	14	0	861	432	4.8	24	11.2	SE	30+	5	5	20	7.8	
HARRISBURG	103	1003.1	1015.9	8.6	-0.2	4.2	-2.3	18.3	19	-9.4	30	0	18			20	-61	14	7	0	36	25	3.0	28	14.8	NW	19	8	11	11	5.6	59
PHILADELPHIA	2	1014.6	1015.7	9.4	0.7	4.4	-3.5	17.2	26+	-9.4	30	0	18	-5.0	52	8	-78	7	4	0	T	T	3.1	28	14.3	NW	18+	9	11	10	5.3	66
PITTSBURGH	347	971.9	1017.2	5.5	-4.3	0.6	-4.6	17.2	27	-17.8	30	0	26	-6.7	60	23	-40	14	9	0	168	51	3.5	26	10.3	SW	18	3	13	14	6.8	44
SCRANTON	283	979.7	1014.6	6.2	-0.7	2.8	-2.1	16.7	27	-12.8	30	0	18	-3.9	63	28	-56	11	9	0	152	51	2.7	25	11.6	NW	1	5	9	16	6.9	37
WILLIAMSPORT	161	995.9	1015.3	7.2	-2.4	2.4	-2.9	15.6	19	-13.3	30	0	24	-3.9	66	21	-74	10	9	0	97	25	2.3	29	11.2	SW	19	5	11	14	6.6	
RHODE ISLAND																																	
BLOCK ISLAND	34			7.1	1.8	4.4	-3.3	13.3	5+	-6.1	30	0	10			26	-84	20	6		0	0						10	12	8	4.9	

CLIMATOLOGICAL DATA

METRIC UNITS

NOVEMBER 1976

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
											No. of days								No. of days		Snow, Ice pellets				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Resultant speed	Resultant direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
RHODE ISLAND																																
PROVIDENCE	16	1010.2	1012.4	8.3	-1.8	3.3	-3.0	16.7	26	-9.4	30	0	22	-3.3	63	21	-94	10	5	0	T	0	3.1	28	10.3	31	18+	13	9	8	4.6	64
SOUTH CAROLINA																																
CHARLESTON	12	1018.0	1020.0	16.6	4.3	10.5	-3.0	24.4	11	-3.9	23+	0	5	3.3	68	91	37	41	7	0	0	0	1.3	29	10.3	25	5	13	5	12	4.9	59
CHARLESTON U	3			15.9	7.3	11.6	-3.2	22.2	11	1.7	23	0	0			80	29	37	7		0	0										
COLUMBIA	65	1011.2	1019.3	15.5	1.9	8.7	-3.4	23.3	11	-6.7	23	0	13	1.7	67	130	71	65	7	0	T	0	1.3	28	10.3	33	8	17	2	11	4.5	57
GRNVLLE-SPRTNBRG	292	983.7	1018.9	13.5	0.4	7.0	-3.6	22.2	10	-8.3	30	0	17	-0.6	66	70	-9	25	9	0	T	0	0.8	25	9.8	SW	21+	18	1	11	4.1	65
SOUTH DAKOTA																																
ABERDEEN	395	971.9	1020.7	3.9	-10.1	-3.1	-2.2	21.1	1	-23.9	29	0	29	-11.1	56	T	-15	T	1	0	5	T	2.8	30	12.5	30	18+	12	4	14	5.2	
HURON	390	972.6	1021.0	3.4	-10.8	-3.7	-3.9	20.6	1	-23.3	28	0	30	-10.6	63	T	-17	T	1	0	10	T	2.5	30	14.8	NW	9	10	8	12	5.6	66
RAPID CITY	964	908.2	1022.6	7.4	-7.7	-0.2	-2.1	22.2	1	-26.1	27	0	24	-10.0	53	15	3	10	7	0	178	102	2.9	35	22.4	NW	30	10	8	12	5.5	65
SIOUX FALLS	432	967.5	1020.8	4.2	-9.1	-2.4	-3.1	19.4	1	-22.8	28	0	28	-10.6	56	2	-20	2	2	0	18	T	2.9	30	14.3	31	9	10	10	10	5.3	
TENNESSEE																																
BRISTOL	459	964.4	1019.7	9.4	-1.8	3.8	-3.8	17.2	27+	-12.2	30	0	22	-2.2	68	36	-35	23	7	0	30	T	1.6	26	9.8	31	7	12	4	14	5.7	
CHATTANOOGA	203	995.6	1020.7	12.3	-0.5	5.9	-3.4	20.6	18+	-8.9	30	0	18	-0.6	69	74	-26	44	7	0	T	T	0.9	31	8.9	21	9	14	6	10	4.8	57
KNOXVILLE	299	984.8	1020.3	11.8	0.6	6.2	-3.3	21.7	27	-8.9	30	0	14	-0.6	65	88	-3	66	7	0	25	T	1.4	28	10.3	23	25+	10	9	11	5.4	60
MEMPHIS	79	1012.2	1022.6	12.8	2.2	7.5	-3.0	23.3	18	-6.7	29	0	10	-1.1	58	46	-53	25	6	0	38	T	0.9	30	10.3	20	26+	19	0	11	4.1	65
NASHVILLE	180	999.0	1021.4	10.8	-0.9	4.9	-4.2	20.0	18	-12.8	30	0	19	-3.3	58	33	-55	15	4	0	30	25	1.5	28	9.8	18	26	18	2	10	4.0	70
OAK RIDGE R	276			11.1	-2.6	4.3	-4.1	17.8	19+	-12.2	30	0	24			58	-45	30	7		T	T			13.0Y		21	12	9	9	4.8	
TEXAS																																
ABILENE	544	958.0	1022.1	13.4	1.7	7.6	-4.7	23.9	26+	-10.0	14	0	11	1.1	70	16	-14	15	3	1	142	102	0.8	22	14.8	N	26	13	3	14	5.1	59
AMARILLO	1098	894.7	1021.2	11.3	-4.2	3.6	-4.3	22.8	6	-17.8	28	0	21	-3.9	65	11	-3	9	3	0	109	76	1.1	29	14.3	1	26	20	3	7	3.1	75
AUSTIN	182	1000.0	1022.5	16.1	5.7	10.9	-4.2	27.2	26	-6.7	29	0	5	5.0	73	45	-7	17	9	1	T	T	1.3	1	17.9	N	11	13	3	14	5.4	49
BROWNSVILLE	6	1020.3	1020.8	20.6	11.4	16.0	-4.1	28.9	11	0.6	28	0	0	11.7	79	63	29	29	9	1	T	0	1.9	36	12.1	NW	13	6	7	17	7.2	39
CORPUS CHRISTI	12	1020.0	1021.7	18.9	9.2	14.1	-4.2	28.9	11	-0.6	29+	0	2	10.6	83	108	67	38	11	0	T	T	2.2	3	13.0	2	13	8	9	13	6.2	49
DALLAS - FORT WORTH	168	1001.0	1022.6	15.4	4.1	9.7	-3.5	27.2	26	-5.6	29	0	6	2.2	63	13	-39	12	2	0	127	76	0.3	31	11.2	5	11	15	3	12	4.7	
DEL RIO	313	984.8	1021.4	17.4	6.1	11.8	-3.6	26.7	26	-5.6	29	0	4	6.7	75	23	6	16	7	0	T	T	0.7	7	11.2	34	27	10	7	13	5.5	
EL PASO	1194	885.5	1019.9	14.8	-0.7	7.1	-3.8	24.4	10	-17.2	29	0	11	-1.1	61	30	22	15	4	0	323	178	1.0	4	11.2	26	26	18	6	6	3.4	77
GALVESTON	2			15.4	9.7	12.6	-4.9	23.9	7	-0.6	29+	0	2			102	22	59	10		0	0			14.8	NE	13					40
HOUSTON INTERCON	29	1018.6	1022.5	17.1	4.8	11.0	-5.2	26.7	26+	-7.2	30	0	3	6.1	77	77	-25	27	10	1	T	T	1.2	2	10.3	1	11	9	10	11	5.6	49
LUBBOCK	992	907.6	1021.2	13.4	-1.6	5.9	-3.4	24.4	9	-17.2	29	0	14	-1.7	65	14	2	9	4	0	231	127	0.3	28	11.2	1	26	16	7	7	3.6	73
MIDLAND	869	920.4	1020.4	15.1	1.1	8.1	-3.7	24.4	10+	-10.6	14	0	9	0.6	65	7	-6	5	2	0	130	127	0.0	9	15.6	26	26	15	7	8	4.1	
PORT ARTHUR	6	1021.7		17.3	5.4	11.4	-4.3	26.7	11	-5.6	30	0	3	7.2	80	141	33	72	10	1	T	0	1.6	2	11.6	NE	11	11	5	14	5.7	55
SAN ANGELO	580	953.6	1021.6	14.8	2.4	8.6	-4.4	24.4	26	-8.3	29	0	9	2.8	71	15	-7	12	4	0	76	76	0.5	22	11.6	22	26	12	6	12	5.0	
SAN ANTONIO	240	993.2	1021.8	16.6	5.7	11.2	-4.2	26.1	20	-6.1	29	0	4	5.6	74	62	18	23	8	1	T	T	1.5	2	12.5	2	11	13	6	11	5.2	44
VICTORIA	32	1017.6	1021.8	17.9	6.9	12.4	-4.6	28.3	11	-4.4	29	0	4	7.8	79	77	19	38	9	0	5	T	1.9	2	16.1Y	N	11	11	5	14	5.7	
WACO	153	1004.1	1022.7	16.2	3.9	10.1	-4.1	27.8	26	-8.3	29	0	9	3.9	72	17	-41	6	7	0	20	25	0.3	30	13.4	1	11	11	4	15	5.6	
WICHITA FALLS	303	985.1	1022.5	14.5	1.5	8.0	-3.6	25.6	26+	-8.3	29	0	13	1.1	67	8	-27	7	3	0	94	102	1.0	23	13.0	34	27+	15	3	12	4.7	
UTAH																																
MILFORD	1533	851.0	1024.0	13.0	-6.8	3.1	0.2	23.3	8	-20.0	28	0	30			12	-5	12	2		T	T			11.6	N	14	19	2	9	3.7	83
SALT LAKE CITY	1286	877.1	1023.9	12.9	-2.1	5.4	1.5	20.0	7	-13.9	28	0	20	-3.3	61	1	-33	1	1	0	T	0	0.5	15	13.0	NW	25	11	7	12	5.5	78
WENDOVER	1291																															
VERMONT																																
BURLINGTON	101	998.6	1011.3	3.6	-2.4	0.6	-2.2	14.4	27	-12.2	30	0	24	-4.4	70	41	-31	12	17	1	338	127	2.0	23	13.4	S	27	1	3	26	8.7	28
VIRGINIA																																
LYNCHBURG	279	983.1		10.8	-1.0	4.9	-3.4	21.1	19	-10.6	30	0	19			35	-33	22	7		T	T			12.1	NW	18	9	10	11	5.2	60
NORFOLK	7	1016.6	1017.7	13.1	2.3	7.7	-3.2	23.9	19	-4.4	14+	0	10	0.0	61	60	-14	26	5	0	T	0	1.7	30	11.2	S	12	15	6	9	4.4	71
RICHMOND	50	1010.8	1017.5	13.3	-1.4	5.9	-3.5	24.4	19	-9.4	30	0	22	-1.7	63	48	-34	33	5	0	25	25	1.2	28	11.2	NW	8	9	12	9	5.3	68
ROANOKE	350	974.9	1017.8	10.6	-1.4	4.6	-3.6	21.7	27+	-11.1	30	0	24	-4.4	57	33	-30	15	8	0	61	T	3.1	29	13.4	31	18	8	11	11	5.7	
WALLOPS ISLAND	3			10.3	0.9	5.6	-4.1	21.7	19	-5.6	30	0	16			34	-43	18	6		76	25			17.9Y	WNW	22+					
WASHINGTON																																
OLYMPIA	59	1014.9	1022.4	10.8	1.6	6.2	-0.1	17.2	16	-7.8	29+	0	10	3.9	88	35	-168	15	9	0	0	0	0.3	15	10.3	25	25	0	8	22	8.8	
QUILLAYUTE	55	1014.2	1021.7	12.9	2.4	7.7	0.9	20.6	3	-5.6	28	0	9	5.0	85	112	-240	29	13	0	0	0	0.7	8	9.8	SW	14	6	7	17	7.0	52

CLIMATOLOGICAL DATA

METRIC UNITS

NOVEMBER 1976

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days Max 32.2 °C or above	Temperature: No of days Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days 25 mm or more	Precipitation: No of days With thunderstorms	Precipitation: Snow, Ice pellets Total	Precipitation: Snow, Ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No of days (sunrise to sunset) Clear, 0-3	No of days (sunrise to sunset) Partly cloudy 4-7	No of days (sunrise to sunset) Cloudy 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							%
WASHINGTON																																
SEATTLE U	6			12.1	5.6	8.8	1.2	17.2	16	-1.7	27	0	4																			
SEATTLE-TACOMA	122	1006.1	1022.8	12.3	5.2	8.8	1.8	18.3	6	-1.7	30+	0	5	5.0	81	19	-131	5	9	0	0	0	6.7	4	10.3	S	24	4	5	21	7.6	36
SPOKANE	718	938.7	1024.8	6.1	-1.9	2.1	0.2	14.4	17	-10.0	27	0	19	-1.7	79	6	+50	2	6	0	T	T	0.7	7	13.4	SW	17	4	8	18	7.5	43
STAMPEDE PASS R	1206	884.2		4.8	-1.0	1.9	2.4	9.4	16	-9.4	27	0	17			125	-191	50	12		152	127						4	8	18	7.5	
WALLA WALLA	289			9.4	2.9	6.2	0.2	20.0	16	-5.6	27	0	11			8	+40	28	4		0	0			11.6	NW	17	2	8	20	8.4	27
YAKIMA	321	986.1	1025.9	11.3	-3.5	3.9	0.4	20.0	17	-13.3	28	0	22	-2.2	70	T	-27	T	0	0	T	T	1.5	30	16.1	31	25	5	10	15	6.7	
WEST INDIES																																
SAN JUAN P.R.	4	1011.9	1014.2	30.2	24.1	27.2	1.2	32.2	3	22.8	21	1	0	19.4	65	70	-69	15	21	1	0	0	2.7	9	12.5	NE	29	6	23	1	4.9	88
WEST VIRGINIA																																
BECKLEY	763	928.2	1019.5	6.2	-3.7	1.3	-4.2	17.8	27	-14.4	30	0	25	-4.4	70	33	-41	13	10	0	323	102	3.1	26	11.6	30	18+	6	9	15	6.3	
CHARLESTON	284	984.1	1019.1	8.4	-2.2	3.1	-4.3	20.6	27	-11.1	30	0	25	-4.4	60	26	-45	9	11	0	119	51	2.4	25	9.8	18	26	10	8	12	5.6	
ELKINS	594	945.5		7.0	-6.4	0.3	-4.6	19.4	27	-16.7	30	0	28			30	-39	9	15		376	127						6	8	16	6.7	
HUNTINGTON	252	988.2	1019.0	9.4	-1.4	4.0	-3.5	22.2	27	-12.2	30	0	24	-4.4	56	19	-54	13	6	0	56	25	2.1	27	9.8	25	27+	8	10	12	5.7	
PARKERSBURG	187			8.1	-1.6	3.3	-3.9	19.4	27	-11.7	30	0	22			9	-55	7	6		76	51			13.0	SW	10					53
WISCONSIN																																
GREEN BAY	208	989.5	1016.1	2.4	-8.7	-3.1	-4.3	13.9	2	-22.8	29+	0	29	-8.9	66	4	-44	3	2	0	43	25	3.5	28	12.1	SW	18	12	4	14	5.4	60
LA CROSSE	198	993.9	1019.3	2.8	-7.3	-2.3	-4.2	14.4	18+	-19.4	30	0	29	-8.9	64	T	-37		0	0	T		1.9	29								
MADISON	262	984.8	1017.3	4.0	-8.4	-2.2	-3.7	16.7	2	-21.1	29	0	29	-7.8	69	3	-45	2	4	0	28	25	3.0	28	11.2	NW	7	10	10	10	5.3	57
MILWAUKEE	205	990.9	1016.8	3.3	-6.1	-1.4	-3.9	14.4	2	-19.4	29	0	28	-6.7	68	17	-35	15	3	0	91	76	4.0	28	13.0	SW	17	13	7	10	4.8	64
WYOMING																																
CASPER	1627	840.2	1021.8	8.3	-5.8	1.3	0.2	17.8	5	-22.2	26	0	25	-8.3	54	2	-15	2	3	0	6	51	3.2	25	13.0	23	17	8	7	15	5.9	
CHEYENNE	1857	813.1	1020.9	7.6	-5.9	0.8	-1.1	20.0	5	-25.0	27	0	24	-10.6	48	7	+8	3	6	1	89	51	3.8	31	23.2	NW	25	10	5	15	6.1	47
LANDER	1696	832.4	1022.8	7.9	-6.0	0.9	1.2	17.2	18	-23.3	27	0	24	-7.8	57	10	-12	8	4	0	249	178	0.5	22	17.9	SW	25	4	11	16	5.3	63
SHERIDAN	1208	882.2	1023.1	9.1	-7.7	0.7	-0.1	21.1	17+	-27.8	27	0	28	-6.7	61	24	0	10	8	0	302	203	2.8	30	17.0	NW	30	9	6	15	6.2	59

HEATING DEGREE DAYS

(Base 65°F.)

State and station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	580	828	534
HUNTSVILLE	658	983	611
MOBILE	430	579	250
MONTGOMERY	502	682	399
ALASKA			
ANCHORAGE	1028	2967	3262
ANNETTE	666	1909	2086
BARROW	1873	6096	6211
BARTER ISLAND	1797	[illegible]	[illegible]
BETHEL	1414	3724	3826
BETTLES	1575	4031	4774
BIG DELTA	1247	3303	4122
COLD BAY	1029	3308	3126
FAIRBANKS	1466	3622	4170
GULKANA	1310	3348	4213
HOMER	880	3014	3285
JUNEAU	717	2378	2788
KING SALMON	1218	3556	3464
KODIAK	782	2644	2760
KOTZEBUE	1586	4155	4537
MC GRATH	1612	3992	4243
NOME	1458	4068	4253
ST. PAUL ISLAND	1006	3635	3556
TALKEETNA	1105	3212	3554
UNALAKLEET	1424	3765	4112
VALDEZ	934	2996	3341
YAKUTAT	730	2672	2970
ARIZONA			
FLAGSTAFF	757	1628	1792
PHOENIX	112	114	199
TUCSON	178	223	250
WINSLOW	711	1128	925
YUMA	72	73	108
ARKANSAS			
FORT SMITH	682	1019	573
LITTLE ROCK	567	825	589
CALIFORNIA			
BAKERSFIELD	193	206	331
BISHOP	432	689	884
BLUE CANYON	371	1016	1149
EUREKA U	375	1396	1498
FRESNO	342	411	435
LONG BEACH	42	42	210
LOS ANGELES	62	67	292
LOS ANGELES U	62	62	153
MT SHASTA R	598	1267	1367
OAKLAND	206	402	639
RED BLUFF	200	234	421
SACRAMENTO	252	297	466
SANDBERG R	319	714	763
SAN DIEGO	39	39	205
SAN FRANCISCO	231	547	671
SAN FRANCISCO L	152	627	841
SANTA MARIA	184	378	737
STOCKTON	255	284	451
COLORADO			
ALAMOSA	1104	2353	2146
COLORADO SPRINGS	859	1654	1458
DENVER	759	1417	1296
GRAND JUNCTION	769	1231	1140
PUEBLO	861	1476	1116
CONNECTICUT			
BRIDGEPORT	673	1095	873
HARTFORD	794	1395	1213
DELAWARE			
WILMINGTON	734	1169	865
DIST.OF COLUMBIA			
WASHINGTON DULLES	793	1313	943
WASHINGTON NATIONAL	652	969	714
FLORIDA			
APPALACHICOLA	307	393	180
DAYTONA BEACH	168	179	97
FORT MYERS	62	64	44
JACKSONVILLE	327	414	180
KEY WEST	0	0	0
LAKELAND U	105	115	72
MIAMI	9	9	13
ORLANDO	118	122	75
PENSACOLA	402	524	221
TALLAHASSEE	359	459	235
TAMPA	122	133	71
WEST PALM BEACH	15	15	22
GEORGIA			
ATHENS	532	772	540
ATLANTA	618	905	553
AUGUSTA	490	681	448
COLUMBUS	483	670	405
MACON	455	618	386
ROME	634	904	650
SAVANNAH	405	547	313
IDAHO			
BOISE	720	1269	1301
LEWISTON	638	1003	1285
POCATELLO	811	1550	1606
ILLINOIS			
CAIRO U	724	1038	669
CHICAGO O HARE	973	1623	1249
CHICAGO MIDWAY	960	1575	1119
MOLINE	1038	1735	1208
PEORIA	981	1652	1158
ROCKFORD	1100	1908	1335
SPRINGFIELD	905	1489	1031
INDIANA			
EVANSVILLE	786	1204	873
FORT WAYNE	938	1610	1209
INDIANAPOLIS	904	1488	1069
SOUTH BEND	949	1632	1258
IOWA			
BURLINGTON	971	1629	1154
DES MOINES	964	1568	1273
DUBUQUE	1106	1914	1467
SIOUX CITY	1062	1791	1362
WATERLOO	1142	2012	1493
KANSAS			
CONCORDIA	868	1386	1056
DODGE CITY	753	1265	954
GOODLAND	884	1595	1290
TOPEKA	881	1397	977
WICHITA	794	1241	849
KENTUCKY			
COVINGTON	893	1467	951
LEXINGTON	829	1372	898
LOUISVILLE	757	1179	876
LOUISIANA			
ALEXANDRIA	453	641	381
BATON ROUGE	401	541	262
LAKE CHARLES	376	513	213
NEW ORLEANS	375	468	219
SHREVEPORT	471	670	348
MAINE			
CARIBOU	1175	2589	2198
PORTLAND	858	1865	1567
MARYLAND			
BALTIMORE	716	1127	844
MASSACHUSETTS			
BLUE HILL OBS R	826	1527	1178
BOSTON	688	1147	979
WORCESTER	905	1731	1346
MICHIGAN			
ALPENA	1031	2061	1902
DETROIT	831	1408	1150
DETROIT METRO	938	1627	1240
FLINT	943	1705	1431
GRAND RAPIDS	999	1807	1347
HOUGHTON LAKE	1094	2204	1858
LANSING	994	1884	1389
MARQUETTE U	1069	2145	1800
MUSKEGON	948	1796	1384
SAULT STE MARIE	1121	2364	2061
MINNESOTA			
DULUTH	1280	2597	2198
INTERNATIONAL FALLS	1359	2738	2412
MINNEAPOLIS	1092	1890	1655
ROCHESTER	1195	2157	1698
ST CLOUD	1249	2309	1872
MISSISSIPPI			
JACKSON	528	725	392
MERIDIAN	553	791	442
MISSOURI			
COLUMBIA REGIONAL	898	1428	922
KANSAS CITY	865	1379	919
ST JOSEPH	906	1404	1000
ST LOUIS	832	1312	859
SPRINGFIELD	797	1253	853
MONTANA			
BILLINGS	884	1603	1612
GLASGOW	1151	2053	1965
GREAT FALLS	844	1583	1756
HAVRE	1037	1863	1942
HELENA	928	1822	2004
KALISPELL	1002	2137	2285
MILES CITY	1061	1847	1728
MISSOULA	974	1966	2040
NEBRASKA			
GRAND ISLAND	944	1590	1279
LINCOLN	979	1615	1192
NORFOLK	1018	1714	1398
NORTH PLATTE	1028	1827	1459
OMAHA	947	1530	1128
SCOTTSBLUFF	903	1573	1491
VALENTINE	1094	1866	1554
NEVADA			
ELKO	810	1610	1802
ELY	842	1889	1869
LAS VEGAS	212	251	431
RENO	670	1336	1438
WINNEMUCCA	691	1286	1596
NEW HAMPSHIRE			
CONCORD	992	1962	1540
MT WASHINGTON OBS	1617	4663	4145
NEW JERSEY			
ATLANTIC CITY	757	1269	867
ATLANTIC CITY L	696	1103	720
NEWARK	745	1186	841
TRENTON U	719	1174	852
NEW MEXICO			
ALBUQUERQUE	726	1128	840
CLAYTON	790	1369	1078
ROSWELL	663	956	755
NEW YORK			
ALBANY	895	1702	1350
BINGHAMTON	1013	2000	1493
BUFFALO	921	1724	1358
NEW YORK U	692	1113	766
NEW YORK KENNEDY	726	1158	844
NEW YORK LA GUARDIA	654	1016	785
ROCHESTER	879	1628	1294
SYRACUSE	869	1673	1261
NORTH CAROLINA			
ASHEVILLE	706	1205	880
CAPE HATTERAS R	448	584	353
CHARLOTTE	621	925	582
GREENSBORO	687	1077	734
RALEIGH	668	977	648
WILMINGTON	455	627	368
NORTH DAKOTA			
BISMARCK	1152	2088	1952
FARGO	1247	2284	1930
WILLISTON	1215	2179	2036
OHIO			
AKRON	948	1754	1224
CINCINNATI ABBE OB	810	1302	894
CLEVELAND	932	1626	1177
COLUMBUS	925	1606	1125
DAYTON U	886	1567	1073
MANSFIELD	1006	1861	1111
TOLEDO	976	1768	1262
YOUNGSTOWN	969	1813	1274
OKLAHOMA			
OKLAHOMA CITY	629	954	634
TULSA	648	981	621
OREGON			
ASTORIA	503	1214	1448
BURNS U	717	1558	1749
EUGENE	518	964	1159
MEDFORD	636	1062	1126
PENDLETON	660	1100	1208
PORTLAND	536	958	1161
SALEM	565	1164	1176
SEXTON SUMMIT R	441	1192	1555
PENNSYLVANIA			
ALLENTOWN	817	1383	1116
ERIE	920	1672	1370
HARRISBURG	756	1254	980
PHILADELPHIA	743	1174	851
PITTSBURGH	953	1773	1204
PITTSBURGH U	869	1486	989
SCRANTON	834	1541	1258
WILLIAMSPORT	855	1466	1184
RHODE ISLAND			
PROVIDENCE	806	1456	1104
SOUTH CAROLINA			
CHARLESTON	418	577	345
CHARLESTON U	356	791	261
COLUMBIA	512	731	453
GRNVLLE-SPRTNBRG	605	913	574
SOUTH DAKOTA			
ABERDEEN	1149	1995	1803
HURON	1181	2069	1651
RAPID CITY	991	1738	1583
SIOUX FALLS	1114	1900	1615
TENNESSEE			
BRISTOL	776	1231	[illegible]
CHATTANOOGA	661	941	[illegible]
KNOXVILLE	651	990	[illegible]
MEMPHIS	581	812	[illegible]
NASHVILLE	718	1098	[illegible]
OAK RIDGE	752	1187	[illegible]
TEXAS			
ABILENE	575	862	[illegible]
AMARILLO	790	1313	[illegible]
AUSTIN	402	572	[illegible]
BROWNSVILLE	177	198	[illegible]
CORPUS CHRISTI	253	312	[illegible]
DALLAS FT WORTH	459	673	[illegible]
DEL RIO	348	475	[illegible]
EL PASO	601	822	[illegible]
GALVESTON	313	409	[illegible]
HOUSTON INTERCON	398	571	[illegible]
LUBBOCK	665	1028	[illegible]
MIDLAND	545	775	[illegible]
PORT ARTHUR	375	524	[illegible]
SAN ANGELO	518	741	[illegible]
SAN ANTONIO	382	542	[illegible]
VICTORIA	325	436	[illegible]
WACO	446	651	[illegible]
WICHITA FALLS	552	824	[illegible]
UTAH			
MILFORD	814	1440	[illegible]
SALT LAKE CITY	689	1165	[illegible]
WENDOVER			
VERMONT			
BURLINGTON	954	1950	[illegible]
VIRGINIA			
LYNCHBURG	719	1125	[illegible]
NORFOLK	566	811	[illegible]
RICHMOND	660	1008	[illegible]
ROANOKE	735	1237	[illegible]
WALLOPS ISLAND	678	993	[illegible]
WASHINGTON			
OLYMPIA	649	1527	[illegible]
QUILLAYUTE	569	1606	[illegible]
SEATTLE	507	1037	[illegible]
SEATTLE-TACOMA	510	974	[illegible]
SPOKANE	871	1592	[illegible]
STAMPEDE PASS R	876	2500	[illegible]
WALLA WALLA U	650	1036	[illegible]
YAKIMA	769	1381	[illegible]
WEST VIRGINIA			
BECKLEY	914	1704	[illegible]
CHARLESTON	814	1382	[illegible]
ELKINS	968	1752	[illegible]
HUNTINGTON	765	1302	[illegible]
PARKERSBURG U	806	1374	[illegible]
WISCONSIN			
GREEN BAY	1152	2132	[illegible]
LA CROSSE	1104	1921	[illegible]
MADISON	1102	2038	[illegible]
MILWAUKEE	1056	1792	[illegible]
WYOMING			
CASPER	913	1783	[illegible]
CHEYENNE	937	1880	[illegible]
LANDER	933	1789	[illegible]

COOLING DEGREE DAYS

(Base 65°F.)

NOVEMBER 1975

State and station	Current season: This month	Current season: Period January through this month	Current season: Normals January through this month
ALABAMA			
BIRMINGHAM	1	1427	1928
HUNTSVILLE	0	1215	1808
MOBILE	4	2405	2567
MONTGOMERY	0	1730	2239
ALASKA			
ANCHORAGE	0	3	0
ANNETTE	0	17	14
BARROW	0	0	0
BARTER ISLAND	0	0	0
BETHEL	0	0	0
BETTLES	0	27	17
BIG DELTA	0	36	34
COLD BAY	0	0	0
FAIRBANKS	0	39	52
GULKANA	0	39	9
HOMER	0	0	0
JUNEAU	0	6	0
KING SALMON	0	0	0
KODIAK	0	5	0
KOTZEBUE	0	0	0
MC GRATH	0	2	14
NOME	0	1	0
ST. PAUL ISLAND	0	0	0
TALKEETNA	0	5	6
UNALAKLEET	0	2	0
VALDEZ	0	0	0
YAKUTAT	0	0	0
ARIZONA			
FLAGSTAFF	0	98	140
PHOENIX	91	3965	3508
TUCSON	34	2760	2814
WINSLOW	0	1049	1203
YUMA	90	3927	4189
ARKANSAS			
FORT SMITH	0	1365	2022
LITTLE ROCK	0	1602	1925
CALIFORNIA			
BAKERSFIELD	32	2558	2179
BISHOP	0	827	1037
BLUE CANYON	2	296	302
EUREKA U	0	0	0
FRESNO	0	1437	1671
LONG BEACH	85	1499	985
LOS ANGELES	96	861	615
LOS ANGELES U	123	1288	1185
MT SHASTA R	0	232	286
OAKLAND	0	198	128
RED BLUFF	9	2018	1904
SACRAMENTO	8	1391	1159
SANDBERG R	5	646	800
SAN DIEGO	102	1212	722
SAN FRANCISCO	0	192	108
SAN FRANCISCO U	15	206	39
SANTA MARIA	6	181	84
STOCKTON	0	1403	1259
COLORADO			
DURANGO	0	26	88
COLORADO SPRINGS	0	435	461
DENVER	0	667	625
GRAND JUNCTION	0	1114	1140
PUEBLO	0	852	981
CONNECTICUT			
BRIDGEPORT	0	775	735
HARTFORD	0	819	584
DELAWARE			
WILMINGTON	0	1003	992
DIST.OF COLUMBIA			
WASHINGTON DULLES	0	779	940
WASHINGTON NATIONAL	0	1554	1415
FLORIDA			
APALACHICOLA U	10	2112	2649
DAYTONA BEACH	39	2529	2874
FT MYERS	122	3199	3603
JACKSONVILLE	13	2172	2577
KEY WEST	289	4512	4668
MIAMI U	67	3160	3235
ORLANDO	209	3873	3879
PENSACOLA	65	3170	3164
TALLAHASSEE	4	2210	2683
TAMPA	14	2286	2553
WEST PALM BEACH	63	2973	3302
	193	3435	3652
GEORGIA			
ATHENS	0	1415	1722
ATLANTA	0	1254	1589
AUGUSTA	0	1691	1995
COLUMBUS	0	1834	2143
MACON	0	1928	2294
ROME	0	1338	1615
SAVANNAH	7	1953	2311
HAWAII			
HILO	291	3015	2861
HONOLULU	315	4070	3951
KAHULUI	300	3581	3496
LIHUE	271	3871	3486
IDAHO			
BOISE	0	535	714
LEWISTON	0	687	657
POCATELLO	0	372	437
ILLINOIS			
CAIRO U	0	1485	1806
CHICAGO O HARE	0	766	664
CHICAGO MIDWAY	0	906	925
MOLINE	0	860	893
PEORIA	0	800	968
ROCKFORD	0	676	714
SPRINGFIELD	0	1021	1116
INDIANA			
EVANSVILLE	0	1112	1364
FORT WAYNE	0	664	748
INDIANAPOLIS	0	770	974
SOUTH BEND	0	682	895
IOWA			
BURLINGTON	0	804	994
DES MOINES	0	1050	928
DUBUQUE	0	571	606
SIOUX CITY	0	949	932
WATERLOO	0	668	675
KANSAS			
CONCORDIA	0	1400	1302
DODGE CITY	0	1531	1411
GOODLAND	0	868	925
TOPEKA	0	1294	1361
WICHITA	0	1417	1473
KENTUCKY			
COVINGTON	0	822	1080
LEXINGTON	0	770	1197
LOUISVILLE	0	1130	1268
LOUISIANA			
ALEXANDRIA	3	2148	2193
BATON ROUGE	2	2248	2579
LAKE CHARLES	4	2281	2732
NEW ORLEANS	13	2390	2695
SHREVEPORT	7	1843	2538
MAINE			
CARIBOU	0	231	128
PORTLAND	0	308	252
MARYLAND			
BALTIMORE	0	1149	1108
MASSACHUSETTS			
BLUE HILL OBS R	0	599	457
BOSTON	0	895	661
WORCESTER	0	443	387
MICHIGAN			
ALPENA	0	375	208
DETROIT	0	967	743
DETROIT METRO	0	706	654
FLINT	0	560	438
GRAND RAPIDS	0	638	575
HOUGHTON LAKE	0	308	250
LANSING	0	556	535
MARQUETTE U	0	393	216
MUSKEGON	0	436	469
SAULT STE MARIE	0	167	139
MINNESOTA			
DULUTH	0	271	176
INTERNATIONAL FALLS	0	281	176
MINNEAPOLIS	0	950	585
ROCHESTER	0	641	474
ST CLOUD	0	557	426
MISSISSIPPI			
JACKSON	0	1943	2314
MERIDIAN	0	1438	2231
MISSOURI			
COLUMBIA REGIONAL	0	1090	1269
KANSAS CITY	0	1296	1420
ST JOSEPH	0	1180	1334
ST LOUIS	0	1229	1475
SPRINGFIELD	0	1085	1382
MONTANA			
BILLINGS	0	547	498
GLASGOW	0	437	438
GREAT FALLS	0	389	339
HAVRE	0	496	395
HELENA	0	171	256
KALISPELL	0	121	117
MILES CITY	0	868	752
MISSOULA	0	158	188
NEBRASKA			
GRAND ISLAND	0	1088	1036
LINCOLN	0	1178	1148
NORFOLK	0	1060	925
NORTH PLATTE	0	533	802
OMAHA	0	1249	1173
SCOTTSBLUFF	0	830	664
VALENTINE	0	888	736
NEVADA			
ELKO	0	228	342
ELY	0	127	207
LAS VEGAS	6	2809	2946
RENO	0	236	329
WINNEMUCCA	0	489	407
NEW HAMPSHIRE			
CONCORD	0	419	349
MT WASHINGTON OBS	0	0	0
NEW JERSEY			
ATLANTIC CITY	0	765	864
ATLANTIC CITY U	0	672	835
NEWARK	0	1099	1024
TRENTON U	0	1053	968
NEW MEXICO			
ALBUQUERQUE	0	1141	1316
CLAYTON	0	727	767
ROSWELL	0	1786	1560
NEW YORK			
ALBANY	0	476	574
BINGHAMTON	0	301	369
BUFFALO	0	432	437
NEW YORK U	0	1076	1068
NEW YORK KENNEDY	0	786	861
NEW YORK LA GUARDIA	0	1158	1048
ROCHESTER	0	566	531
SYRACUSE	0	357	551
NORTH CAROLINA			
ASHEVILLE	0	545	872
CAPE HATTERAS R	0	1466	1550
CHARLOTTE	0	1255	1596
GREENSBORO	0	1048	1341
RALEIGH	0	1459	1394
WILMINGTON	2	1936	1964
NORTH DAKOTA			
BISMARCK	0	663	487
FARGO	0	766	473
WILLISTON	0	507	422
OHIO			
AKRON	0	424	634
CINCINNATI ABBE OB	0	968	1188
CLEVELAND	0	600	613
COLUMBUS	0	608	809
DAYTON U	0	669	936
MANSFIELD	0	402	818
TOLEDO	0	599	685
YOUNGSTOWN	0	461	518
OKLAHOMA			
OKLAHOMA CITY	0	1702	1876
TULSA	0	1685	1949
OREGON			
ASTORIA	0	24	13
BURNS U	0	227	289
EUGENE	0	231	239
MEDFORD	0	436	562
PENDLETON	0	578	656
PORTLAND	0	216	300
SALEM	0	132	232
SEXTON SUMMIT R	0	166	137
PACIFIC AREA			
GUAM TAGUAC R	421	4575	4592
JOHNSTON	407	4443	4695
KOROR R	543	5710	5503
KWAJALEIN	507	5520	5649
MAJURO	465	5118	5405
PAGO PAGO	483	4994	4860
PONAPE R	481	5247	5168
TRUK MOEN ISLAND	505	5451	5383
WAKE	486	5148	5033
YAP R	474	5090	5420
PENNSYLVANIA			
ALLENTOWN	0	797	772
ERIE	0	339	373
HARRISBURG	0	901	1025
PHILADELPHIA	0	1211	1104
PITTSBURGH	0	358	647
SCRANTON	0	681	608
WILLIAMSPORT	0	675	698
RHODE ISLAND			
BLOCK ISLAND	0	481	359
PROVIDENCE	0	631	532
SOUTH CAROLINA			
CHARLESTON	0	1054	1244
CHARLESTON U	0	1003	2347
COLUMBIA	0	1775	2087
GRNVLLE-SPRTNBRG	0	1135	1573
SOUTH DAKOTA			
ABERDEEN	0	754	966
HURON	0	894	711
RAPID CITY	0	676	666
SIOUX FALLS	0	1040	719
TENNESSEE			
BRISTOL	0	753	1107
CHATTANOOGA	0	1165	1636
KNOXVILLE	0	1133	1564
MEMPHIS	0	1906	2264
NASHVILLE	0	1154	1694
OAK RIDGE	0	771	1367
TEXAS			
ABILENE	0	1925	2466
AMARILLO	0	1013	1433
AUSTIN	6	2418	2903
BROWNSVILLE	59	3703	3797
CORPUS CHRISTI	34	3086	3437
DALLAS FT WORTH	0	2251	2658
DEL RIO	8	2587	3303
EL PASO	0	1135	1696
GALVESTON	7	2549	2981
HOUSTON INTERCON	9	2225	2878
LUBBOCK	0	1422	1861
MIDLAND	0	1571	1956
PORT ARTHUR	8	2371	2790
SAN ANGELO	0	1855	2306
SAN ANTONIO	0	2383	2987
VICTORIA	16	2668	3125
WACO	5	2507	2863
WICHITA FALLS	0	2060	2611
UTAH			
MILFORD	0	514	666
SALT LAKE CITY	0	943	927
WENDOVER			
VERMONT			
BURLINGTON	0	483	396
VIRGINIA			
LYNCHBURG	0	926	1100
NORFOLK	0	1558	1441
RICHMOND	0	1385	1353
ROANOKE	0	863	1030
WALLOPS ISLAND	0	954	1107
WASHINGTON			
OLYMPIA	0	14	101
QUILLAYUTE	0	0	8
SEATTLE	0	73	183
SEATTLE-TACOMA	0	129	129
SPOKANE	0	293	388
STAMPEDE PASS R	0	14	46
WALLA WALLA U	0	698	862
YAKIMA	0	336	479
WEST INDIES			
SAN JUAN P.R.	485	5213	4826
WEST VIRGINIA			
BECKLEY	0	356	490
CHARLESTON	0	801	1055
ELKINS	0	514	864
HUNTINGTON	0	867	1098
PARKERSBURG U	0	741	1045
WISCONSIN			
GREEN BAY	0	520	886
LA CROSSE	0	781	695
MADISON	0	627	960
MILWAUKEE	0	667	957
WYOMING			
CASPER	0	439	636
CHEYENNE	0	217	327
LANDER	0	394	383
SHERIDAN	0	382	446

STORM SUMMARY

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				◊ ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	
Alabama																													
Alaska										18	16	7								3						1	5	5	
Arizona												5																	
Arkansas *																													
California											?	6																	
Colorado																				?	?		16	?					
Connecticut																4													
Delaware *																													
Florida *																													
Georgia *																													
Hawaii																													
Idaho *																											?	4	
Illinois *																													
Indiana *																													
Iowa *																													
Kansas										1																			
Kentucky *																													
Louisiana																						2		?	5				
Maine *																													
Maryland & DC *																													
Massachusetts												4																	
Michigan												2	2						2	4									
Minnesota *																													
Mississippi *																													
Missouri *																													
Montana *																													
Nebraska *																													
Nevada *																													
New Hampshire																			8										
New Jersey *																													
New Mexico																				6									
New York																		3	?	?									
North Carolina *																													
North Dakota *																													
Ohio *																													
Oklahoma *																													
Oregon *																													
Pacific *																				1									
Pennsylvania																													
Puerto Rico *																													
Rhode Island *																													
South Carolina *																													
South Dakota *																													
Tennessee *																													
Texas																		1	5	?	?			?	C				
Utah *																													
Vermont *																													
Virginia													3																
Virgin Islands *																													
Washington *																													
West Virginia *																													
Wisconsin *																													
Wyoming *																													

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

NOVEMBER 1976

Herbert J. Thompson, Office of Hydrology

There was no serious flooding during November. Generally minor flooding occurred on several streams in the South Atlantic Slope and east Gulf of Mexico Drainages. Moderate flooding continued from October on the Guadalupe, Frio, and Nueces Rivers in South Texas. There were no flood related deaths.

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
ATLANTIC SLOPE DRAINAGE		
Heavy rains late in the month caused flooding on the Rocky River, which crested 5 feet over flood stage at Norwood, NC, and lowland flooding on the lower Savannah River in Georgia, which extended into December. Minor flooding occurred on the Roanoke and Lumber Rivers in North Carolina.	0	N.A.
EAST GULF OF MEXICO DRAINAGE		
Some flooding occurred on several streams in northern Florida and southern Alabama from late November rains. The Appalachicola River crested 4 feet over flood stage at Blountstown, FL, on December 2, the Ochlockonee about 1.7 feet over flood stage on December 2, and the upper Choctawhatchee more than 6 feet over flood stage at Newton, AL, on the 30th with lesser flooding downstream.	0	N.A.
WEST GULF OF MEXICO DRAINAGE		
Flooding continued into November from the heavy rains of late October on the lower Guadalupe, Frio, and Nueces Rivers as discussed in the October flood summary, and lasted throughout the month on the lower Nueces at Calallen, TX. During the last three weeks of November frequent moderate rains totaling up to 5 inches prolonged the flooding at Calallen and caused additional flooding on the lower Guadalupe where crests up to nearly 7 feet over flood stage occurred.	0	N.A.

FLOOD STAGE DATA

(All dates in November unless otherwise specified)

River and station	Flood stage	Above flood stages –dates From	To	Crest Stage	Date
	Ft			Ft	
ATLANTIC SLOPE DRAINAGE					
Peedee:					
Williamston, NC	10	6	8	10.0	7
		14	19	10.4	17
Rocky:					
Norwood, NC	15	29	30	20.0	29
Lumber:					
Lumberton, NC	9	22	24	9.07	23
Savannah:					
Clyo, GA	11	29	1/	15.9	Dec 2
EAST GULF OF MEXICO DRAINAGE					
Ochlockonee:					
Havana, FL	7	30	1/	26.61	Dec 2
Apalachicola:					
Blountstown, Fl	15	29	1/	18.96	Dec 2
Choctawhatchee:					
Newton, AL	19	29	Dec 1	25.4	30
Geneva, AL	23	30	Dec 1	23.69	Dec 1
Caryville, FL	12	30	Dec 6	13.89	Dec 3

River and station	Flood stage	Above flood stages –dates From	To	Crest Stage	Date
	Ft			Ft	
WHITE BASIN					
Cache:					
Patterson, AR	7	Oct 28	4	7.5	
WEST GULF OF MEXICO DRAINAGE					
Guadalupe:					
Cuero USGS, TX	20	Oct 31	4	23.7	
		28	30	21.5	
Victoria, TX	21	Oct 30	5	26.9	
		29	30	25.4	
Dupont, TX	20	Oct 16	11	26.5	Oct
		19	26	23.8	
		27	1/	26.6	Dec
Frio:					
Calliham, TX	12	Oct 30	4	21.18	Oct
Nueces:					
Tilden, TX	14	Oct 29	15	21.40	
Three Rivers, TX (near)	25	Oct 29	8	36.6	
Mathis Bridge, TX	15	Oct 27	11	28.7	
Calallen, TX	7	Oct 27	1/	9.6	7

RAWINSONDE DATA

Average monthly values

ALBANY, NY
1003 MB

Standard pressure surface	No. of observations	Distance height meters	Temperature C	Dew Point C	Resultant Wind Direction Degrees	Resultant Wind Speed m/s
SFC	31	36	-.1	+4.0	24	2.3
1000	29	134	.8	+4.3	27	3.1
950	31	518	-1.2	-5.6	29	7.4
900	31	947	-3.8	-7.7	29	11.2
850	31	1,396	-6.3	-10.3	30	12.9
800	31	1,859	-8.2	-14.0	30	12.8
750	31	2,359	-9.9	-18.4	33	14.9
700	31	2,899	-12.1	-22.1	27	17.3
650	31	3,453	-14.8	-26.3	27	19.3
600	31	4,065	-18.0	-29.1	27	21.4
550	31	4,711	-21.6	-34.7	27	24.9
500	31	5,417	-26.0	-39.4	28	27.4
450	31	6,193	-30.8	-41.7	28	30.1
400	31	6,999	-36.3	-48.2	28	31.9
350	29	7,898	-42.2	-46.5	28	32.3
300	28	8,916	-47.5		27	32.9
250	28	10,110	-51.1		26	35.7
200	28	11,537	-52.2		26	34.8
175	28	12,366	-52.7		26	34.2
150	28	13,414	-53.5		26	27.4
125	28	14,581	-55.7		26	25.1
100	27	15,933	-57.3		26	23.8
80	27	17,402	-58.0		27	24.8
70	26	18,251	-57.4		26	12.4
60	25	19,225	-58.5		26	10.8
50	24	20,316	-58.0		25	8.8
40	24	21,781	-57.6		27	8.9
30	24	23,581	-56.9		28	8.8
25	24	24,737	-56.5		27	8.3
20	19	26,135	-54.8		27	12.4
15	18	27,967	-56.1		27	14.9
10	9	30,497	-57.2			

ALPENA, MI
941 MB

Standard pressure surface	No. of observations	Distance height meters	Temperature C	Dew Point C	Resultant Wind Direction Degrees	Resultant Wind Speed m/s
SFC	30	1,819	-.8	-7.4	28	6.0
1000	29	2,020	2.4	-7.7	26	5.9
950	30	2,541	1.1	-10.1	32	6.4
900	30	3,094	-1.	-14.5	32	4.3
850	30	3,682	-4.8	-17.8	28	5.7
800	30	4,292	-8.1	-31.4	29	5.9
750	30	4,940	-11.7	-28.7	30	6.5
700	30	5,635	-14.7	-35.1	30	7.8
650	30	6,387	-20.4	-34.5	30	9.6
600	30	7,241	-29.2	-40.4	31	11.2
550	29	8,258	-36.9	-44.4	31	11.5
500	28	9,383	-44.4		31	13.0
450	28	10,631	-52.1		31	14.8
400	28	11,956	-58.2		30	15.3
350	28	12,798	-60.3		29	16.6
300	28	13,756	-61.4		29	16.8
250	28	14,880	-63.3		29	15.6
200	27	16,241	-66.1		29	12.8
150	27	17,953	-60.7		30	9.8
100	26	19,960	-65.		30	7.5
70	25	21,461	-64.1		30	5.5
50	24	23,313	-63.4		30	5.5
40	24	24,474	-62.1		29	4.4
30	24	25,981	-60.1		29	4.4
25	24	26,783	-59.2		29	4.4
20	19	27,799	-58.4		29	4.4
15	18	29,178	-57.1		29	4.4
10	9	31,128	-56.2		29	4.4

AMARILLO, TX
835 MB

Standard pressure surface	No. of observations	Distance height meters	Temperature C	Dew Point C	Resultant Wind Direction Degrees	Resultant Wind Speed m/s
SFC	31	1,395	-1.6	-4.9	31	4.4
1000	31	1,112	-.8	-6.4	27	4.4
950	31	1,510	4.5	-7.5	30	3.7
900	30	2,003	3.6	-9.8	30	3.4
850	30	2,525	1.5	-11.4	30	3.4
800	30	3,078	-1.4	-14.5	30	4.1
750	30	3,666	-4.4	-17.8	29	4.8
700	30	4,292	-8.1	-31.4	29	6.
650	30	4,967	-12.7	-36.1	29	10.
600	30	5,693	-17.2	-30.9	29	11.4
550	30	6,466	-22.4	-35.5	29	13.4
500	30	7,316	-29.6	-41.5	29	14.7
450	30	8,258	-36.9	-44.4	28	15.4
400	30	9,303	-44.9		28	17.2
350	30	10,501	-52.6		28	18.7
300	30	11,921	-58.7		28	19.2
250	30	13,584	-62.1		28	20.7
200	30	14,843	-63.5		28	19.8
150	30	16,203	-66.0		29	14.2
100	30	17,555	-65.5		29	11.
70	30	18,359	-64.5		30	9.7
60	30	19,313	-63.4		30	9.1
50	30	20,436	-62.1		30	6.9
40	30	21,788	-60.1		30	5.9
30	30	23,431	-57.1		29	5.5
25	30	24,331	-55.7		29	5.4
20	30	25,435	-55.0		29	5.5
15	30	26,815	-54.6		28	5.5
10	30	28,497	-53.2		28	5.5
7	30	29,612	-52.4		28	5.5

ATHENS, GA
990 MB

Standard pressure surface	No. of observations	Distance height meters	Temperature C	Dew Point C	Resultant Wind Direction Degrees	Resultant Wind Speed m/s
SFC	31	246	3.8	-.4	28	1.1
1000	29	112	-14.3	-15.3	26	1.9
950	31	555	6.6	-3.6	28	4.2
900	31	1,028	5.5	-4.8	28	6.4
850	31	1,527	4.3	-8.0	28	9.1
800	31	1,987	3.6	-11.1	27	12.9
750	31	2,539	1.3	-12.7	27	13.7
700	31	3,062	-1.0	-14.8	27	14.7
650	31	3,651	-3.7	-16.7	27	15.8
600	31	4,279	-6.8	-20.2	27	21.7
550	31	4,954	-10.9	-24.6	27	23.7
500	31	5,680	-15.6	-29.2	27	24.4
450	31	6,467	-20.8	-33.5	28	28.7
400	31	7,317	-27.1	-38.2	28	31.9
350	30	8,238	-33.8	-44.1	28	33.3
300	30	9,248	-41.6	-44.3	28	31.8
250	28	10,362	-50.0		28	29.5
200	29	11,994	-57.6		28	33.5
175	29	12,831	-60.8		27	30.4
150	28	13,782	-63.2		27	29.
125	28	14,897	-65.5		28	28.9
100	28	16,250	-66.7		27	28.1
80	28	17,601	-66.3		27	27.3
70	28	18,411	-65.1		27	25.8
60	28	19,353	-63.2		27	17.0
50	28	20,415	-62.2		27	10.7
40	28	21,869	-59.4		27	9.7
30	28	23,682	-56.7		28	8.0
25	27	24,835	-55.7		28	8.0
20	27	26,263	-53.8		28	9.2
15	24	28,122	-52.1		28	12.9
10	14	30,767	-50.2		27	20.7
7	4	33,081	-48.2			

BOISE, ID
922 MB

Standard pressure surface	No. of observations	Distance height meters	Temperature C	Dew Point C	Resultant Wind Direction Degrees	Resultant Wind Speed m/s
SFC	31	871	.8	-3.9	23	2.1
1000	29	169	20.3	4.4	23	4.1
950	29	649	14.4	1.5	24	4.5
900	31	1,169	11.5	-1.1	24	5.4
850	31	1,706	7.5	-4.1	24	6.4
800	31	2,259	4.5	-5.7	27	6.3
750	31	2,854	1.5	-7.9	30	5.1
700	31	3,497	-1.6	-13.3	30	7.2
650	31	3,694	-4.6	-17.9	30	8.8
600	31	4,319	-8.4	-23.3	30	10.3
550	31	4,989	-12.5	-29.8	30	11.9
500	31	5,710	-17.7	-34.9	31	13.9
450	31	6,490	-23.0	-36.0	31	15.6
400	31	7,336	-29.3	-34.1	31	17.2
350	31	8,286	-36.4	-44.8	31	20.6
300	31	9,332	-45.1		31	20.8
250	31	10,527	-53.8		31	22.1
200	31	11,937	-60.5		31	24.1
175	31	12,766	-61.5		31	22.4
150	29	13,762	-61.6		31	20.4
125	29	14,851	-62.0		31	17.4
100	27	16,222	-62.8		33	13.5
80	26	17,595	-62.0		32	10.0
70	26	18,422	-61.4		33	7.1
60	26	19,380	-61.3		34	6.9
50	26	20,513	-60.0		36	8.3
40	25	21,910	-59.2		03	8.4
30	25	23,719	-57.4		06	8.2
25	25	24,873	-56.8		05	8.0
20	24	26,232	-55.3		05	8.2
15	16	28,150	-53.5		05	9.7

ALPENA, MI
941 MB

Standard pressure surface	No. of observations	Distance height meters	Temperature C	Dew Point C	Resultant Wind Direction Degrees	Resultant Wind Speed m/s
SFC	30	1,819	-.8	-7.4	28	6.0
1000	29	2,020	2.4	-7.7	26	5.9
950	30	2,541	1.1	-10.1	32	6.4
900	30	3,094	-1.	-14.5	32	4.3
850	30	3,682	-4.8	-17.8	28	5.7
800	30	4,292	-8.1	-31.4	29	5.9
750	30	4,940	-11.7	-28.7	30	6.5
700	30	5,635	-14.7	-35.1	30	7.8
650	30	6,387	-20.4	-34.5	30	9.6
600	30	7,241	-29.2	-40.4	31	11.2
550	29	8,258	-36.9	-44.4	31	11.5
500	28	9,383	-44.4		31	13.0
450	28	10,631	-52.1		31	14.8
400	28	11,956	-58.2		30	15.3
350	28	12,798	-60.3		29	16.6
300	28	13,756	-61.4		29	16.8
250	28	14,880	-63.3		29	15.6
200	27	16,241	-66.1		29	12.8
150	27	17,953	-60.7		30	9.8
100	26	19,960	-65.		30	7.5
70	25	21,461	-64.1		30	5.5
50	24	23,313	-63.4		30	5.5
40	24	24,474	-62.1		29	4.4
30	24	25,981	-60.1		29	4.4
25	24	26,783	-59.2		29	4.4
20	19	27,799	-58.4		29	4.4
15	18	29,178	-57.1		29	4.4
10	9	31,128	-56.2		29	4.4

AMARILLO, TX
835 MB

Standard pressure surface	No. of observations	Distance height meters	Temperature C	Dew Point C	Resultant Wind Direction Degrees	Resultant Wind Speed m/s
SFC	31	1,395	-1.6	-4.9	31	4.4
1000	31	1,112	-.8	-6.4	27	4.4
950	31	1,510	4.5	-7.5	30	3.7
900	30	2,003	3.6	-9.8	30	3.4
850	30	2,525	1.5	-11.4	30	3.4
800	30	3,078	-1.4	-14.5	30	4.1
750	30	3,666	-4.4	-17.8	29	4.8
700	30	4,292	-8.1	-31.4	29	6.
650	30	4,967	-12.7	-36.1	29	10.
600	30	5,693	-17.2	-30.9	29	11.4
550	30	6,466	-22.4	-35.5	29	13.4
500	30	7,316	-29.6	-41.5	29	14.7
450	30	8,258	-36.9	-44.4	28	15.4
400	30	9,303	-44.9		28	17.2
350	30	10,501	-52.6		28	18.7
300	30	11,921	-58.7		28	19.2
250	30	13,584	-62.1		28	20.7
200	30	14,843	-63.5		28	19.8
150	30	16,203	-66.0		29	14.2
100	30	17,555	-65.5		29	11.
70	30	18,359	-64.5		30	9.7
60	30	19,313	-63.4		30	9.1
50	30	20,436	-62.1		30	6.9
40	30	21,788	-60.1		30	5.9
30	30	23,431	-57.1		29	5.5
25	30	24,331	-55.7		29	5.4
20	30	25,435	-55.0		29	5.5
15	30	26,815	-54.6		28	5.5
10	30	28,497	-53.2		28	5.5
7	30	29,612	-52.4		28	5.5

RAWINSONDE DATA

Average monthly values

NOVEMBER 1976

CARIBOU, ME — 982 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	29	191	-5.3	-8.5	27	3.1
1000						
950	29	453	-4.6	-7.7	28	6.7
900	29	878	-6.7	-9.0	29	8.9
850	29	1,322	-9.0	-11.7	29	10.1
800	29	1,790	-10.9	-15.3	29	12.0
750	29	2,284	-12.5	-18.4	28	13.3
700	29	2,810	-14.6	-23.3	28	14.3
650	29	3,369	-17.1	-25.7	28	15.0
600	29	3,965	-20.2	-28.2	27	14.4
550	29	4,606	-23.6	-32.1	27	17.9
500	29	5,296	-28.1	-37.2	27	19.3
450	29	6,045	-32.8	-41.9	27	21.0
400	28	6,854	-38.7	-45.5	27	20.3
350	27	7,769	-44.7		27	19.4
300	24	8,789	-50.0		27	20.0
250	24	9,976	-51.5		27	20.6
200	24	11,424	-51.6		27	23.4
175	24	12,291	-51.9		27	22.7
150	24	13,289	-52.3		27	20.0
125	23	14,466	-53.3		27	17.6
100	22	15,898	-55.2		27	16.9
80	18	17,320	-55.7		27	16.3
70	18	18,169	-56.4		28	13.2
60	18	19,145	-57.1		28	11.1
50	18	20,298	-57.5			
40	14	21,706	-58.1			
30	14	23,517	-58.4			
25	13	24,682	-58.3			
20	12	26,114	-57.0			
15	12	27,930	-58.2			
10	6	30,552	-56.3			

CENTREVILLE, AL — 1005 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	28	140	4.4	1.3	34	1.5
1000	23	192	5.1	-.7	34	1.7
950	28	606	6.7	-1.5	30	3.9
900	28	1,044	5.7	-4.4	30	6.5
850	28	1,510	4.7	-7.8	29	8.0
800	28	2,004	3.8	-9.7	27	9.9
750	28	2,527	1.8	-12.0	27	11.9
700	28	3,081	-.4	-14.4	28	14.6
650	28	3,673	-3.1	-16.7	28	16.8
600	28	4,300	-6.7	-21.6	27	18.5
550	28	4,974	-10.9	-26.6	27	20.5
500	28	5,700	-15.5	-29.4	26	23.6
450	28	6,487	-20.8	-32.6	26	27.5
400	28	7,347	-27.0	-38.3	26	31.4
350	27	8,299	-33.9	-42.6	26	33.9
300	24	9,360	-41.4	-42.1	26	40.5
250	24	10,571	-49.9		26	44.5
200	24	12,003	-58.0		26	51.1
175	24	12,837	-61.7		26	53.3
150	24	13,780	-64.7		26	46.8
125	23	14,889	-66.8		27	36.4
100	22	16,229	-67.8		27	26.8
80	18	17,569	-66.6		27	17.1
70	18	18,378	-65.0		27	15.8
60	18	19,234	-63.5		26	12.9
50	18	20,250	-61.3		26	9.7
40	14	21,843	-59.0		27	6.3
30	14	23,653	-56.1		28	3.8
25	13	24,818	-54.3		28	5.1
20	12	26,256	-52.0		30	4.1
15	12	28,123	-51.1		28	7.8
10	6	30,801	-48.0		27	12.6

[illegible] — [illegible] MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	13	6.8	2.7	29	1.2
1000	30	163	9.5	1.6	33	2.5
950	30	589	9.6	-1.1	30	4.9
900	30	1,036	7.6	-1.8	28	6.1
850	30	1,507	6.9	-7.4	27	9.7
800	30	2,004	5.2	-7.5	27	11.3
750	30	2,529	3.2	-9.9	27	13.7
700	30	3,086	.8	-12.4	27	14.1
650	30	3,678	-1.8	-16.6	26	15.2
600	30	4,311	-5.2	-21.5	26	21.7
550	30	4,989	-9.4	-24.6	26	24.8
500	30	5,719	-14.4	-29.0	26	27.3
450	30	6,510	-19.5	-33.2	26	31.9
400	30	7,375	-25.3	-37.9	26	35.2
350	30	8,334	-32.3	-42.2	26	39.0
300	29	9,400	-40.4	-43.8	26	43.4
250	26	10,620	-49.0		26	50.2
200	26	12,057	-57.5		26	53.7
175	26	12,893	-61.4		26	52.5
150	26	13,841	-64.3		26	48.8
125	26	14,942	-67.4		26	40.1
100	26	16,279	-68.4		26	30.2
80	26	17,619	-67.0		26	21.4
70	26	18,428	-65.7		26	14.7
60	26	19,367	-64.4		26	13.9
50	26	20,489	-61.7		26	11.2
40	26	21,984	-59.3		27	8.9
30	26	23,695	-56.4		27	5.2
25	25	24,843	-54.3		27	6.5
20	25	26,300	-52.6		27	10.1
15	25	28,173	-50.5		27	12.1
10	15	30,786	-49.4		27	22.6

CHATHAM, MA — 1010 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	16	3.2	-1.9	27	3.0
1000	25	113	4.1	-2.0	28	4.7
950	30	510	1.8	-4.4	28	8.6
900	30	944	-.9	-7.0	28	9.7
850	30	1,399	-2.7	-11.9	27	10.7
800	30	1,878	-4.0	-14.1	27	12.7
750	30	2,383	-7.4	-16.3	27	15.1
700	30	2,918	-9.5	-18.6	26	18.0
650	30	3,488	-12.0	-23.0	26	20.9
600	30	4,097	-15.4	-24.7	26	22.4
550	30	4,749	-19.4	-31.0	26	24.7
500	30	5,451	-23.9	-35.1	26	28.1
450	30	6,213	-28.8	-38.9	26	31.5
400	30	7,047	-34.1	-44.6	26	34.8
350	29	7,973	-39.8	-47.7	26	39.0
300	29	9,010	-45.7		26	41.3
250	29	10,211	-50.7		26	44.3
200	29	11,654	-53.6		26	42.7
175	29	12,510	-55.1		26	39.6
150	28	13,491	-56.4		26	36.6
125	28	14,644	-58.1		26	32.4
100	25	16,042	-59.1		26	26.1
80	25	17,434	-57.7		26	19.6
70	25	18,270	-59.3		26	16.0
60	24	19,262	-60.6		26	14.7
50	22	20,385	-59.3		26	12.4
40	21	21,778	-57.4		27	9.6
30	21	23,581	-58.6		27	9.5
25	21	24,723	-58.1		27	9.6
20	18	26,118	-57.7		27	13.2
15	7	28,145	-56.9		27	17.7
10	4	30,465	-57.7			

CHIHUAHUA, MEXICO — 860 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	1,428	4.1	-.6	27	4.3
1000						
950						
900						
850	30	1,923	6.1	1.3	26	5.4
800	30	2,421	3.2	-.1	23	5.9
750	30	2,948	4.1	-3.4	22	6.6
700	30	3,507	1.5	-9.7	24	8.4
650	30	4,101	-1.6	-15.3	23	8.9
600	30	4,734	-5.1	-20.7	25	9.5
550	30	5,414	-9.3	-26.9	26	9.8
500	30	5,741	-14.5	-30.8	26	7.3
450	30	6,510	-20.5	-35.8	26	9.4
400	30	7,391	-27.0	-40.9	26	12.0
350	30	8,343	-33.7	-40.7	25	15.5
300	30	9,404	-41.5	-52.0	25	20.2
250	30	10,621	-46.9		25	22.4
200	30	12,063	-56.2		25	26.5
175	28	12,904	-57.0		25	24.8
150	30	13,849	-55.3		25	23.0
125	30	14,989	-47.4		26	20.1
100	30	16,376	-36.0		27	15.3
80	29	17,699	-29.4		27	10.5
70	29	18,427	-28.3		25	8.4
60	29	19,362	-28.8		28	5.5
50	23	20,470	-28.5		27	3.5
40	21	21,857	-27.1		25	5.1
30	21	23,567	-26.5		27	5.7
25	21	24,430	-24.6		27	5.0
20	18	26,277	-24.5		27	5.0
15	7	28,145	-24.9			
10						

COLD BAY, AK — 990 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	29	30	-1.0	-3.5	32	.7
1000	1	93	-.8	-5.2		
950	29	361	-1.1	-3.6	02	1.8
900	29	791	-4.1	-6.1	34	.9
850	29	1,239	-6.9	-10.4	33	.8
800	29	1,710	-9.6	-14.6	28	1.0
750	29	2,206	-12.6	-19.8	27	1.2
700	29	2,729	-16.2	-25.3	23	1.1
650	29	3,284	-19.3	-29.6	22	1.4
600	29	3,875	-22.9	-33.8	21	2.9
550	29	4,507	-27.2	-37.9	21	4.2
500	29	5,187	-32.1	-42.3	22	4.4
450	29	5,924	-36.9	-45.5	22	5.1
400	29	6,729	-42.5	-45.5	21	5.9
350	28	7,616	-47.7		20	6.8
300	28	8,624	-50.6		21	8.3
250	28	9,815	-49.2		22	8.5
200	28	11,286	-47.2		21	7.9
175	28	12,169	-47.4		22	7.6
150	28	13,190	-46.6		22	7.7
125	28	14,397	-47.8		21	7.3
100	28	15,867	-48.4		21	7.1
80	28	17,333	-49.3		21	6.7
70	27	18,206	-49.8		21	5.7
60	27	19,214	-49.7		20	5.8
50	27	20,346	-50.3		20	4.1
40	25	21,867	-50.3		17	3.7
30	23	23,746	-49.9		13	3.2
25	22	24,938	-49.4		12	3.7
20	20	26,405	-48.4		10	5.8
15	17	28,296	-47.7		10	8.3
10						

DAYTON, OH — 982 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	999	-1.1	-5.4	26	2.7
1000						
950	30	563	-1.1	-6.6	27	6.4
900	30	993	-3.0	-9.5	28	8.6
850	30	1,444	-4.9	-12.7	28	9.9
800	30	1,920	-6.4	-15.9	28	12.1
750	30	2,423	-8.4	-18.4	28	14.7
700	30	2,955	-10.9	-21.4	28	16.7
650	30	3,522	-13.5	-25.0	28	18.8
600	30	4,127	-16.6	-28.4	28	21.3
550	30	4,777	-20.0	-33.4	28	23.9
500	30	5,477	-24.4	-36.1	28	26.5
450	29	6,238	-29.4	-40.0	27	29.7
400	30	6,729	-34.9	-44.6	27	33.0
350	28	7,992	-40.4	-47.3	27	37.4
300	28	9,025	-46.4		27	40.8
250	28	10,227	-52.3		27	43.0
200	28	11,660	-54.8		27	44.9
175	28	12,369	-55.5		27	37.2
150	28	13,188	-56.8		27	33.3
125	28	14,232	-58.2		27	28.7
100	28	16,033	-59.6		27	23.4
80	28	17,430	-60.2		27	17.8
70	27	18,264	-59.5		27	15.5
60	27	19,223	-59.7		27	13.6
50	27	20,364	-59.2		27	11.0
40	25	21,760	-57.4		28	9.6
30	23	23,592	-55.9		28	7.0
25	22	24,743	-55.5		30	5.4
20	20	26,173	-53.8		32	4.0
15	10	28,044	-52.8		28	7.6
10	7	30,599	-54.1			

DEL RIO, TX — 984 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	314	8.1	6.0	05	1.1
1000	30	608	9.1	4.6	14	2.3
950	30	1,056	8.0	2.7	19	2.6
900	30	1,527	6.9	.5	22	2.5
850	30	2,025	6.1	-4.0	25	3.1
800	30	2,553	4.3	-6.6	25	3.7
750	30	3,112	1.7	-13.0	25	4.2
700	30	3,706	-1.5	-16.8	26	4.8
650	30	4,339	-5.3	-21.0	26	4.8
600	30	5,017	-9.6	-26.3	26	8.6
550	30	5,746	-14.4	-31.2	24	11.2
500	30	6,536	-20.0	-34.6	25	13.6
450	30	7,399	-26.3	-40.0	25	15.6
400	30	8,354	-32.9	-46.0	25	19.3
350	30	9,419	-40.5	-48.7	25	23.9
300	30	10,639	-48.9		25	31.7
250	30	12,078	-56.9		25	35.3
200	30	13,936	-62.8		25	32.9
175	28	14,866	-64.5		26	29.2
150	28	15,871	-68.1		26	24.7
125	28	17,032	-69.9		27	17.3
100	28	18,432	-68.4		27	9.2
80	28	19,343	-66.1		27	7.6
70	28	20,047	-62.8		27	6.6
60	28	21,862	-60.1		28	5.6
50	28	23,671	-56.6		27	8.1
40	28	25,832	-55.2		27	8.7
30	28	26,243	-53.3		27	9.2
25	28	28,125	-51.5		28	8.9
20	15	30,796	-48.8		28	11.4

DENVER, CO — 841 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	1,611	-1.1	-8.1	22	1.7
1000						
950						
900						
850	30	2,005	2.9	-9.7	29	3.5
800	30	2,525	-.1	-12.8	32	4.7
750	30	3,074	-3.2	-16.0	31	7.2
700	30	3,657	-6.4	-19.7	32	10.6
650	30	4,277	-10.4	-24.1	32	12.3
600	30	4,942	-14.7	-28.3	32	12.8
550	30	5,657	-19.8	-32.5	31	13.4
500	30	6,430	-25.5	-36.8	31	14.3
450	30	7,273	-31.8	-42.2	31	16.4
400	30	8,202	-38.7	-47.2	31	19.0
350	30	9,245	-46.8		31	21.1
300	30	10,435	-54.0		31	22.1
250	30	11,850	-58.5		31	22.5
200	29	13,680	-56.4		31	20.6
175	28	14,638	-59.6		30	20.9
150	28	15,776	-60.1		30	18.0
125	28	16,157	-62.5		30	13.4
100	27	17,535	-62.7		29	9.5
80	27	18,359	-61.7		31	7.3
70	27	19,313	-61.4		32	6.3
60	26	20,449	-60.7		34	4.9
50	26	21,543	-59.4		36	3.9
40	25	22,651	-57.4		02	4.3
30	24	24,832	-55.2		03	3.8
25	24	26,243	-54.3		35	3.0
20	23	27,932	-53.3		30	2.9
15	12	28,091	-53.3			
10	6	30,740	-52.9			

[illegible] CITY, KS — 979 [illegible]

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	27	791	-6.2	-6.5	27	1.3
1000						
950						
900						
850	30	1,644	3.5	-8.0	30	6.9
800	30	1,568	3.4	-9.7	31	4.5
750	30	1,994	1.6	-11.8	31	5.4
700	30	2,446	-.9	-13.6	31	7.3
650	30	2,964	-3.7	-15.0	31	10.0
600	30	3,540	-7.2	-17.3	31	11.8
550	30	4,186	-10.5	-22.1	30	12.9
500	30	4,931	-14.3	-26.6	29	14.2
450	30	5,747	-19.3	-32.5	29	15.4
400	30	6,622	-25.7	-37.0	29	16.9
350	30	7,567	-31.3	-42.3	29	18.7
300	30	8,602	-38.4	-44.6	29	21.4
250	30	9,744	-46.4		29	22.2
200	30	11,043	-53.0		28	23.7
175	30	11,847	-55.1		28	23.2
150	30	12,694	-57.1		27	23.2
125	30	13,648	-60.5		27	23.8
100	30	14,779	-61.1		27	20.5
80	30	16,187	-59.1		25	16.2
70	30	17,530	-58.2		29	12.5
60	30	18,362	-58.0		30	[illegible]
50	31	19,393	-62.3		31	7.2
40	31	20,433	-60.8		31	[illegible]
30	33	21,826	-59.7		31	3.8
25	33	23,230	-57.4		33	2.9
20	31	24,762	-56.2		31	4.0
15	29	26,215	-54.5		29	5.7
10	27	28,069	-53.1		2	5.7
5	13	30,599	-52.6			

EL PASO, TX — 886 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	1,193	1.1	-2.6	03	.7
1000						
950						
900						
850	30	1,527	5.3	-3.4	08	.6
800	30	2,021	4.5	-5.5	20	.2
750	30	2,545	2.7	-10.2	34	1.1
700	30	3,101	.2	-14.2	33	1.2
650	30	3,692	-3.1	-16.8	28	2.4
600	30	4,321	-6.7	-21.4	28	4.0
550	30	4,995	-11.1	-27.0	28	4.0
500	30	5,719	-16.1	-32.1	29	4.6
450	30	6,504	-22.0	-37.6	28	6.0
400	30	7,358	-28.9	-42.8	28	7.4
350	28	8,302	-36.4	-49.3	28	8.9
300	30	9,350	-44.0		27	10.8
250	30	10,556	-50.8		27	14.2
200	30	11,986	-57.2		27	19.3
175	30	12,826	-59.9		27	18.6
150	29	13,784	-62.3		27	16.8
125	28	14,894	-65.5		28	18.5
100	28	16,244	-67.4		28	13.9
80	28	17,586	-67.8		29	10.3
70	28	18,391	-66.7		29	7.4
60	24	19,330	-65.4		28	5.5
50	22	20,445	-63.0		29	4.3
40	20	21,835	-60.2		29	3.9
30	18	23,657	-56.6		28	4.7
25	15	24,824	-53.8		27	5.7
20	13	26,265	-52.3		24	6.3
15	13	28,128	-51.6		28	6.8
10						

ELY, NV — 913 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	1,908	-5.1	-14.3	20	3.8
1000						
950						
900						
850						
800	30	2,041	2.5	-7.6	20	2.4
750	30	2,564	3.0	-10.3	34	2.0
700	30	3,121	.4	-14.0	34	4.0
650	30	3,711	-3.1	-16.8	33	6.3
600	30	4,341	-6.8	-21.4	33	7.6
550	30	5,014	-11.3	-26.7	33	8.5
500	30	5,738	-16.2	-30.6	33	9.9
450	30	6,523	-21.8	-35.0	33	11.3
400	30	7,378	-28.4	-41.0	33	12.3
350	30	8,318	-35.9	-45.9	33	14.9
300	29	9,366	-44.4		33	16.4
250	29	10,569	-53.5		33	17.5
200	29	11,980	-60.4		32	19.4
175	28	12,810	-62.4		32	18.1
150	28	13,766	-62.3		32	16.5
125	28	14,888	-64.0		31	13.9
100	28	16,248	-65.7		32	12.2
80	28	17,603	-65.5		33	8.8
70	28	18,418	-64.4		34	7.7
60	28	19,362	-63.6		35	4.8
50	27	20,482	-62.0		02	3.6
40	27	21,869	-60.0		02	3.6
30	27	23,680	-56.9		05	3.9
25	27	24,824	-56.5		05	3.8
20	27	26,258	-54.7		05	4.8
15	26	28,115	-53.1		06	5.3
10						

EMPALME, MEXICO — 1013 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	12	15.9	8.5	36	1.4
1000	30	119	20.1	10.5	01	1.9
950	30	563	20.0	7.6	02	2.9
900	30	1,027	17.2	4.1	12	1.8
850	30	1,511	13.8	.8	06	.8
800	30	2,019	10.1	-2.1	14	.2
750	30	2,552	6.7	-6.3	18	.6
700	30	3,116	3.7	-11.0	25	.8
650	30	3,715	.9	-16.3	29	1.8
600	30	4,353	-3.4	-21.3	31	2.2
550	30	5,035	-8.1	-26.0	31	3.3
500	30	5,767	-13.6	-30.3	30	4.2
450	30	6,558	-19.7	-34.5	29	5.0
400	29	7,422	-26.3	-39.8	28	7.4
350	29	8,377	-33.0	-46.5	28	10.1
300	29	9,447	-39.8	-51.7	28	13.3
250	29	10,673	-47.2		27	14.8
200	29	12,125	-54.9		27	20.4
175	28	12,971	-58.6		27	21.5
150	28	13,930	-62.6		27	19.7
125	28	15,043	-66.8		27	16.7
100	28	16,380	-69.3		27	12.7
80	28	17,710	-69.9		28	9.2
70	28	18,513	-68.1		28	8.6
60	28	19,445	-66.0		28	8.8
50	27	20,581	-62.7		27	8.8
40	27	21,993	-59.7		27	4.1
30	27	23,769	-55.1		27	4.4
25	27	24,936	-53.7		28	3.2
20	26	26,385	-51.1		28	4.5
15	8	28,303	-50.5			

FAIRBANKS, AK — 987 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	135	-9.2	-11.9	03	.7
1000						
950	30	431	-3.1	-7.6	10	2.8
900	30	859	-3.4	-8.9	13	4.9
850	30	1,311	-3.8	-10.1	16	5.1
800	30	1,788	-4.4	-12.6	17	6.2
750	30	2,290	-9.3	-15.6	20	7.7
700	30	2,820	-12.9	-16.7	23	8.5
650	30	3,381	-14.5	-22.0	20	8.9
600	30	3,978	-20.5	-25.6	20	10.1
550	30	4,617	-24.0	-30.1	20	11.1
500	30	5,303	-29.3	-35.7	20	12.5
450	30	6,043	-34.7	-39.8	20	14.5
400	30	6,857	-40.4	-39.9	20	15.6
350	29	7,758	-46.7		21	17.6
300	29	8,764	-51.7		21	19.5

RAWINSONDE DATA

Average monthly values

GLASGOW, MT
938 MB

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	30	696	-6.2	-10.6	01	1.0
1000						
950						
900	30	1,026	-1.2	-10.3	32	4.9
850	30	1,481	-2.2	-13.0	32	8.5
800	30	1,961	-4.0	-15.7	31	10.4
750	30	2,469	-6.0	-17.6	32	12.3
700	30	3,006	-8.9	-21.3	32	13.8
650	30	3,576	-11.7	-23.7	32	16.0
600	30	4,186	-15.2	-26.3	32	17.8
550	30	4,838	-19.2	-30.6	32	19.8
500	30	5,541	-23.7	-36.4	32	21.8
450	30	6,303	-28.8	-40.1	33	24.5
400	30	7,136	-35.0	-46.1	33	26.9
350	30	8,056	-42.0	-46.2	32	28.3
300	30	9,081	-49.1		32	29.0
250	30	10,262	-54.6		32	29.8
200	30	11,680	-56.9		32	29.3
175	30	12,513	-56.4		32	29.1
150	29	13,511	-56.3		32	22.0
125	28	14,615	-57.3		32	18.9
100	27	16,081	-58.8		32	14.9
80	25	17,485	-58.3		33	13.2
70	25	18,326	-58.6		34	10.7
60	25	19,295	-58.5		34	9.2
50	23	20,446	-58.3		35	8.4
40	21	21,855	-58.2		36	6.8
30	21	23,671	-57.0		01	6.2
25	20	24,832	-57.0		03	6.7
20	18	26,244	-55.8		03	5.8
15	14	28,086	-55.2		04	8.5
10						

GRAND JUNCTION
857 MB

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	30	1,472	-1.1	-1.9	16	1.7
1000						
950						
900						
850	28	1,841	2.7	-8.5	14	4.2
800	30	2,226	3.4	-9.7	14	4.4
750	30	2,647	1.2	-11.2	13	4.8
700	30	3,098	-2.4	-13.6	13	3.7
650	30	3,583	-5.5	-17.3	15	6.4
600	30	4,107	-9.1	-21.2	17	6.6
550	30	4,674	-13.7	-25.1	17	7.4
500	30	5,292	-18.4	-30.1	19	8.5
450	30	5,970	-23.7	-35.1	19	13.5
400	30	7,720	-30.2	-39.4	19	15.4
350	30	8,260	-37.1	-45.5	20	16.8
300	30	9,304	-45.3		18	18.6
250	30	10,492	-53.5		19	19.9
200	30	11,914	-58.9		18	18.4
175	30	12,760	-60.5		18	17.0
150	29	13,719	-61.0		18	17.2
125	28	14,844	-62.7		18	18.8
100	27	16,214	-63.8		18	13.8
80	25	17,481	-63.9		22	9.2
70	25	18,401	-63.2		23	7.3
60	25	19,336	-62.7		23	5.3
50	23	20,477	-61.3		25	4.1
40	21	21,869	-59.5		26	4.3
30	21	23,677	-57.6		25	3.3
25	20	24,833	-56.2		25	4.6
20	18	26,255	-54.7		25	4.0
15	14	28,110	-53.3		22	5.6
10						

[illegible]

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	3	[illegible]	[illegible]	[illegible]	23	[illegible]
1000						
950						
900						
850	3	1,508	2.3	-7.4	27	[illegible]
800	3	1,995	-.4	-10.2	27	[illegible]
750	3	2,509	-3.1	-12.9	30	[illegible]
700	3	3,052	-5.9	-16.7	31	[illegible]
650	3	3,630	-9.2	-21.2	32	[illegible]
600	3	4,249	-12.5	-24.8	31	[illegible]
550	3	4,914	-16.8	-28.6	32	[illegible]
500	3	5,615	-21.6	-32.9	32	[illegible]
450	3	6,374	-27.1	-36.0	32	[illegible]
400	3	7,215	-33.3	-41.7	32	[illegible]
350	3	8,142	-41.3	-45.8	32	[illegible]
300	3	9,173	-47.9		32	[illegible]
250	3	10,355	-54.9		32	[illegible]
200	3	11,765	-58.8		32	[illegible]
175	3	12,606	-58.3		32	[illegible]
150	3	13,575	-58.3		32	[illegible]
125	3	14,722	-58.9		32	[illegible]
100	3	16,118	-59.7		32	[illegible]
80	3	17,508	-59.3		32	[illegible]
70	3	18,350	-59.0		33	[illegible]
60	3	19,314	-59.3		34	[illegible]
50	3	20,454	-59.0		35	[illegible]
40	3	21,858	-58.0		02	[illegible]
30	3	23,680	-56.7		03	[illegible]
25	3	24,838	-56.9		04	[illegible]
20	3	26,255	-55.6		04	[illegible]
15	3	28,118	-54.6		05	[illegible]
10		30,752	-53.1			

[illegible]

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	3	1,189	-.7	-7.3	23	[illegible]
1000						
950						
900						
850	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
800	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
750	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
700	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
650	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
600	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
350	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
200	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
175	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
150	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
125	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
80	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10						

[illegible]

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	3	359	-4.7	-12.3	27	[illegible]
1000						
950						
900						
850	3	530	-7.4	[illegible]	[illegible]	[illegible]
800	3	951	-8.3	-12.9	[illegible]	[illegible]
750	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
700	3	1,393	-9.2	-17.4	31	[illegible]
650	3	1,881	-10.4	-19.2	[illegible]	8.6
600	3	2,356	-12.8	-22.0	[illegible]	[illegible]
550	3	2,881	-15.2	[illegible]	32	10.6
500	3	3,438	-17.0	-27.4	32	11.6
450	3	4,033	-21.2	-32.4	32	13.2
400	3	4,677	-24.9	-34.0	32	15.6
350	3	5,357	-29.3	-38.4	32	16.6
300	3	6,102	-34.3	-40.9	32	15.5
250	3	6,917	-40.0	-41.7	32	14.6
200	3	7,821	-45.9	[illegible]	[illegible]	16.8
175	3	8,347	-49.4	[illegible]	32	18.1
150	3	10,023	-52.6	[illegible]	32	[illegible]
125	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	3	[illegible]	[illegible]	[illegible]	32	18.5
80	3	[illegible]	[illegible]	[illegible]	32	17.5
70	3	[illegible]	[illegible]	[illegible]	32	16.4
60	3	16,496	-58.4	[illegible]	[illegible]	[illegible]
50	3	15,928	-54.8	[illegible]	[illegible]	15,241
40	3	17,355	-55.2	[illegible]	[illegible]	16,270
30	3	18,206	-55.1	[illegible]	[illegible]	18,371
25	3	19,186	-55.1	[illegible]	[illegible]	[illegible]
20	3	[illegible]	-56.4	[illegible]	[illegible]	[illegible]
15	3	21,764	-54.8	[illegible]	[illegible]	[illegible]
10		24,749	-56.5			

GUADALUPE IS., MEXICO
1013 MB

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	30	23	18.4	14.1	34	3.0
1000	30	137	18.8	9.3	34	3.8
950	30	578	18.5	1.5	35	3.5
900	30	1,040	16.4	-3.4	02	2.5
850	30	1,523	14.2	-7.4	03	2.0
800	30	2,032	11.5	-9.9	34	2.3
750	30	2,568	9.1	-11.8	31	3.8
700	30	3,136	6.3	-14.4	01	4.7
650	30	3,740	3.0	-18.1	34	5.2
600	30	4,382	-1.5	-21.7	34	6.0
550	30	5,069	-6.5	-25.6	35	8.4
500	30	5,806	-12.0	-30.2	34	9.0
450	30	6,603	-17.9	-34.6	34	9.8
400	30	7,472	-24.5	-40.2	33	9.8
350	30	8,433	-31.8	-46.5	32	11.9
300	30	9,510	-40.1	-52.5	31	13.8
250	29	10,724	-48.9		30	16.2
200	29	12,165	-56.3		29	19.4
175	29	13,007	-59.6		28	19.7
150	29	13,963	-63.1		28	19.1
125	28	15,078	-66.6		28	15.6
100	27	16,416	-70.2		28	11.4
80	25	17,742	-69.4		30	7.3
70	25	18,542	-67.9		30	6.2
60	25	19,473	-66.0		32	5.2
50	25	20,588	-62.7		32	1.9
40	22	21,977	-59.5		24	2.4
30	21	23,791	-55.6		24	4.4
25	18	24,954	-53.6		24	5.0
20	16	26,390	-52.2		24	4.4
15	11	28,252	-50.4			
10						

GUAM, MARIANA IS.
[illegible] MB

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	30	111	25.4	22.4	09	2.2
1000						
950	30	549	23.6	21.[illegible]	09	5.6
900	30	1,021	20.9	[illegible]	[illegible]	[illegible]
850	30	1,514	18.3	[illegible]	[illegible]	[illegible]
800	30	2,033	15.[illegible]	[illegible]	[illegible]	[illegible]
750	30	2,579	13.1	[illegible]	[illegible]	[illegible]
700	30	3,157	10.2	[illegible]	[illegible]	[illegible]
650	30	3,771	7.[illegible]	[illegible]	[illegible]	[illegible]
600	30	4,424	3.1	[illegible]	[illegible]	[illegible]
550	30	5,124	-.9	[illegible]	[illegible]	[illegible]
500	30	5,874	-5.[illegible]	[illegible]	[illegible]	[illegible]
450	30	6,698	-10.3	[illegible]	[illegible]	[illegible]
400	29	7,595	-16.[illegible]	-31.[illegible]	[illegible]	[illegible]
350	29	8,581	-22.9	-39.[illegible]	[illegible]	[illegible]
300	29	9,668	-31.[illegible]	-47.[illegible]	[illegible]	[illegible]
250	28	10,960	-41.[illegible]	[illegible]	[illegible]	[illegible]
200	29	12,432	-54.1	[illegible]	[illegible]	[illegible]
175	29	13,276	-61.0	[illegible]	[illegible]	[illegible]
150	29	14,218	-68.6	[illegible]	[illegible]	[illegible]
125	28	15,291	-75.8	[illegible]	[illegible]	[illegible]
100	27	16,536	-81.9	[illegible]	[illegible]	[illegible]
80	25	17,805	-81.6	[illegible]	[illegible]	[illegible]
70	25	18,586	-76.8	[illegible]	[illegible]	[illegible]
60	24	19,459	-71.2	[illegible]	[illegible]	[illegible]
50	23	20,555	-65.8	[illegible]	[illegible]	[illegible]
40	22	21,924	-61.5	[illegible]	[illegible]	[illegible]
30	19	23,729	-56.7	[illegible]	[illegible]	[illegible]
25	19	24,894	-53.0	[illegible]	[illegible]	[illegible]
20	19	26,344	-49.3	[illegible]	[illegible]	[illegible]
15	18	28,234	-45.[illegible]	[illegible]	[illegible]	[illegible]
10	13	30,953	-43.7	[illegible]	[illegible]	[illegible]

[illegible]

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	3	1	21.3	18.4	29	[illegible]
1000	3	134	21.[illegible]	17.9	33	[illegible]
950	3	578	18.6	15.6	04	[illegible]
900	3	1,045	15.4	[illegible]	05	[illegible]
850	3	1,523	12.5	10.1	06	[illegible]
800	3	2,031	10.1	3.7	06	[illegible]
750	3	2,568	9.6	-6.3	07	[illegible]
700	3	3,136	8.3	-12.2	02	[illegible]
650	3	3,740	5.6	-15.7	36	[illegible]
600	3	4,399	2.0	-18.8	35	[illegible]
550	3	5,115	-2.5	-22.6	33	[illegible]
500	3	5,883	-7.[illegible]	-26.7	31	[illegible]
450	3	6,695	-13.5	-31.2	32	[illegible]
400	3	7,559	-20.[illegible]	-36.8	31	[illegible]
350	3	8,515	-28.[illegible]	-43.5	30	[illegible]
300	3	9,601	-36.2	-49.4	29	[illegible]
250	3	10,841	-45.5	[illegible]	28	[illegible]
200	3	12,298	-55.9	[illegible]	27	[illegible]
175	3	13,138	-61.3	[illegible]	27	[illegible]
150	3	14,079	-68.1	[illegible]	27	[illegible]
125	3	15,159	-74.4	[illegible]	27	[illegible]
100	3	16,449	-77.0	[illegible]	27	[illegible]
80	3	17,737	-75.8	[illegible]	27	[illegible]
70	3	18,515	-72.8	[illegible]	27	[illegible]
60	3	[illegible]	-68.7	[illegible]	14	[illegible]
50	3	[illegible]	-64.4	[illegible]	09	[illegible]
40	3	21,913	-60.7	[illegible]	09	[illegible]
30	3	23,725	-55.9	[illegible]	09	[illegible]
25	3	24,890	-54.0	[illegible]	09	[illegible]
20	3	26,336	-51.2	[illegible]	09	[illegible]
15	3	28,201	-49.7	[illegible]	[illegible]	[illegible]
10	3	30,882	-48.5	[illegible]	25	[illegible]

[illegible]

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	3	359	-4.7	-12.3	27	[illegible]
1000						
950						
900						
850	3	530	-7.4	[illegible]	[illegible]	[illegible]
800	3	951	-8.3	-12.9	[illegible]	[illegible]
750	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
700	3	1,393	-9.2	-17.4	31	[illegible]
650	3	1,881	-10.4	-19.2	[illegible]	8.6
600	3	2,356	-12.8	-22.0	[illegible]	[illegible]
550	3	2,881	-15.2	[illegible]	32	10.6
500	3	3,438	-17.0	-27.4	32	11.6
450	3	4,033	-21.2	-32.4	32	13.2
400	3	4,677	-24.9	-34.0	32	15.6
350	3	5,357	-29.3	-38.4	32	16.6
300	3	6,102	-34.3	-40.9	32	15.5
250	3	6,917	-40.0	-41.7	32	14.6
200	3	7,821	-45.9	[illegible]	[illegible]	16.8
175	3	8,347	-49.4	[illegible]	32	18.1
150	3	10,023	-52.6	[illegible]	32	[illegible]
125	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	3	[illegible]	[illegible]	[illegible]	32	18.5
80	3	[illegible]	[illegible]	[illegible]	32	17.5
70	3	[illegible]	[illegible]	[illegible]	32	16.4
60	3	16,496	-58.4	[illegible]	[illegible]	[illegible]
50	3	15,928	-54.8	[illegible]	[illegible]	15,241
40	3	17,355	-55.2	[illegible]	[illegible]	16,270
30	3	18,206	-55.1	[illegible]	[illegible]	18,371
25	3	19,186	-55.1	[illegible]	[illegible]	[illegible]
20	3	[illegible]	-56.4	[illegible]	[illegible]	[illegible]
15	3	21,764	-54.8	[illegible]	[illegible]	[illegible]
10		24,749	-56.5			

JACKSON, MS
1010 MB

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	30	100	4.1	1.7	34	.4
1000	28	183	5.9	.5	35	1.4
950	30	599	6.8	-2.0	32	3.9
900	30	1,042	6.2	-4.2	31	5.1
850	30	1,511	5.9	-6.5	30	6.9
800	30	2,006	4.7	-8.4	29	8.7
750	30	2,531	2.6	-11.5	29	10.4
700	30	3,086	.1	-13.0	27	12.9
650	30	3,677	-2.6	-17.4	27	14.4
600	30	4,308	-6.1	-21.5	27	16.2
550	30	4,983	-10.4	-24.7	28	19.3
500	30	5,711	-15.2	-29.1	28	22.5
450	28	6,497	-22.4	-34.0	28	25.0
400	29	7,359	-28.6	-38.7	28	27.7
350	28	8,313	-33.2	-40.6	28	31.5
300	27	9,381	-41.0	-43.2	28	37.7
250	27	10,598	-49.3		28	42.6
200	27	12,034	-57.5		28	48.6
175	26	12,864	-61.4		28	47.4
150	26	13,812	-64.5		28	41.8
125	25	14,922	-67.1		28	36.3
100	24	16,264	-68.3		27	24.9
80	23	17,601	-67.8		27	18.3
70	23	18,409	-67.1		27	15.4
60	22	19,345	-64.7		27	10.3
50	22	20,465	-62.7		27	7.9
40	22	21,853	-60.6		27	7.2
30	20	23,657	-58.0		28	6.8
25	20	24,811	-56.1		29	6.6
20	20	26,238	-53.5		28	7.4
15	19	28,097	-52.3		28	10.9
10	17	30,736	-49.7		28	15.1

JOHN F. KENNEDY INT., NY
1014 MB

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	30	3	3.5	-4.4	2	2.8
1000	30	117	3.[illegible]	-[illegible]	[illegible]	4.6
950	30	531	1.[illegible]	-[illegible]	[illegible]	8.5
900	30	984	-1.[illegible]	-[illegible]	[illegible]	8.9
850	30	1,448	-3.[illegible]	-11.[illegible]	[illegible]	9.3
800	30	1,934	-5.[illegible]	-[illegible]	[illegible]	[illegible]
750	30	2,441	-7.[illegible]	-[illegible]	[illegible]	[illegible]
700	30	2,936	-9.[illegible]	-[illegible]	[illegible]	[illegible]
650	30	3,506	-12.1	-[illegible]	[illegible]	[illegible]
600	30	4,118	-15.1	-[illegible]	[illegible]	[illegible]
550	30	4,769	-18.[illegible]	-[illegible]	[illegible]	[illegible]
500	30	5,472	-23.[illegible]	-[illegible]	[illegible]	[illegible]
450	30	6,235	-28.[illegible]	-[illegible]	[illegible]	[illegible]
400	30	7,069	-34.2	-[illegible]	[illegible]	[illegible]
350	30	7,995	-[illegible]	-[illegible]	[illegible]	[illegible]
300	30	9,031	-[illegible]	[illegible]	[illegible]	[illegible]
250	30	10,224	-50.5	[illegible]	[illegible]	[illegible]
200	29	11,669	-53.3	[illegible]	[illegible]	[illegible]
175	29	12,526	-55.1	[illegible]	[illegible]	[illegible]
150	29	13,512	-56.7	[illegible]	[illegible]	[illegible]
125	28	14,660	-[illegible]	[illegible]	[illegible]	[illegible]
100	28	16,061	-59.6	[illegible]	[illegible]	[illegible]
80	27	17,454	-59.[illegible]	[illegible]	[illegible]	[illegible]
70	27	18,290	-59.[illegible]	[illegible]	[illegible]	[illegible]
60	26	19,263	-58.[illegible]	[illegible]	[illegible]	[illegible]
50	26	20,435	-59.6	[illegible]	[illegible]	[illegible]
40	26	21,807	-58.[illegible]	[illegible]	[illegible]	[illegible]
30	24	23,620	-56.9	[illegible]	[illegible]	[illegible]
25	23	24,774	-56.3	[illegible]	[illegible]	[illegible]
20	23	26,194	-55.7	[illegible]	[illegible]	[illegible]
15	19	28,038	-54.6	[illegible]	[illegible]	[illegible]
10	16	30,680	-53.6	[illegible]	[illegible]	[illegible]

JOHNSTON IS., PACIFIC OCEAN
[illegible] MB

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	3	4	25.[illegible]	21.[illegible]	[illegible]	[illegible]
1000	3	138	24.[illegible]	20.3	[illegible]	[illegible]
950	3	567	22.[illegible]	18.2	[illegible]	[illegible]
900	3	[illegible]	17.[illegible]	14.6	[illegible]	[illegible]
850	3	1,519	14.[illegible]	9.7	[illegible]	[illegible]
800	3	2,[illegible]	12.[illegible]	2.4	[illegible]	[illegible]
750	3	2,573	11.7	-3.3	[illegible]	[illegible]
700	3	3,148	9.7	-10.6	[illegible]	[illegible]
650	3	3,759	6.5	-12.[illegible]	[illegible]	[illegible]
600	3	4,412	3.[illegible]	-17.1	[illegible]	[illegible]
550	3	5,[illegible]	-1.[illegible]	-[illegible]	[illegible]	[illegible]
500	3	5,843	-6.4	-[illegible]	[illegible]	[illegible]
450	3	6,[illegible]	-12.0	-29.5	[illegible]	[illegible]
400	3	[illegible]	-18.6	-35.[illegible]	[illegible]	[illegible]
350	3	[illegible]	-25.6	-[illegible]	[illegible]	[illegible]
300	3	9,[illegible]	-34.[illegible]	-47.[illegible]	[illegible]	[illegible]
250	3	10,902	-43.3	[illegible]	[illegible]	[illegible]
200	3	12,367	-54.[illegible]	[illegible]	[illegible]	[illegible]
175	3	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]
150	3	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]
125	3	[illegible]	-75.0	[illegible]	[illegible]	[illegible]
100	3	16,505	-78.6	[illegible]	[illegible]	[illegible]
80	3	17,774	-78.4	[illegible]	[illegible]	[illegible]
70	3	18,542	-74.8	[illegible]	[illegible]	[illegible]
60	3	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]
50	3	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]
40	3	20,552	-[illegible]	[illegible]	[illegible]	[illegible]
30	3	21,929	-[illegible]	[illegible]	[illegible]	[illegible]
25	3	23,741	-[illegible]	[illegible]	[illegible]	[illegible]
20	3	24,907	-[illegible]	[illegible]	[illegible]	[illegible]
15	3	26,[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]
10	3	30,940	-[illegible]	[illegible]	[illegible]	[illegible]
		33,340	-40.6			

KEY WEST, FL
[illegible] MB

Standard pressure surface (mb)	No. of observations	Elevation, height meters	Temperature C	Dew Point C	Resultant Wind Direction, tens of deg	Resultant Wind Speed, mps
SFC	3	1	21.[illegible]	[illegible]	[illegible]	[illegible]
1000	3	148	21.[illegible]	[illegible]	[illegible]	[illegible]
950	3	591	18.7	[illegible]	[illegible]	[illegible]
900	3	1,055	[illegible]	[illegible]	[illegible]	[illegible]
850	3	1,534	14.[illegible]	[illegible]	[illegible]	[illegible]
800	3	2,053	12.7	[illegible]	[illegible]	[illegible]
750	3	2,593	[illegible]	[illegible]	[illegible]	[illegible]
700	3	3,165	[illegible]	[illegible]	[illegible]	[illegible]
650	3	3,779	[illegible]	[illegible]	[illegible]	[illegible]
600	3	4,421	[illegible]	-13.[illegible]	[illegible]	[illegible]
550	3	5,115	[illegible]	-19.[illegible]	[illegible]	[illegible]
500	3	5,864	[illegible]	-21.4	[illegible]	[illegible]
450	3	6,676	-12.7	-27.7	[illegible]	[illegible]
400	3	7,564	[illegible]	-32.[illegible]	[illegible]	[illegible]
350	3	8,547	-24.[ill

RAWINSONDE DATA

Average monthly values

NOVEMBER 1976

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
KORO, CAROLINE IS. 1006 MB						
SFC	30	30	28.5	25.0	08	1.5
1000	30	83	27.1	23.6	08	1.9
950	30	536	23.4	21.3	08	3.0
900	30	1,008	20.6	17.8	08	3.2
850	30	1,501	17.6	14.6	07	2.4
800	30	2,019	15.4	11.1	07	2.7
750	30	2,565	12.8	6.7	08	3.3
700	30	3,143	9.8	1.6	08	3.4
650	30	3,756	6.7	-3.0	07	4.0
600	30	4,409	2.9	-8.9	07	3.9
550	30	5,109	-1.8	-10.8	08	4.1
500	30	5,864	-5.0	-16.4	09	5.5
450	29	6,688	-9.5	-22.5	10	5.4
400	29	7,589	-14.9	-27.7	08	4.6
350	28	8,592	-21.8	-35.9	09	4.9
300	28	9,704	-30.3	-43.5	10	5.8
250	28	10,974	-40.4	-49.2	10	6.1
200	28	12,454	-53.1		10	5.9
175	28	13,302	-59.8		10	6.4
150	28	14,248	-67.4		09	4.7
125	28	15,327	-74.9		09	4.7
100	28	16,598	-81.9		10	7.0
90	28	17,852	-78.9		08	4.3
70	28	18,622	-74.3		05	1.9
50	28	19,529	-70.4		07	1.4
40	27	20,627	-65.6		09	4.4
30	27	22,061	-60.9		09	14.0
20	25	23,815	-56.2		03	24.0
15	24	24,991	-52.6		03	28.3
10	21	26,447	-48.7		03	27.9
7	19	28,369	-43.4		09	25.8
5	14	31,153	-37.5		09	7.3
KOTZEBUE, AK 1003 MB						
SFC	28	5	-10.6	-13.4	06	2.5
1000	19	74	-11.7	-15.1	05	1.6
950	28	425	-8.2	-11.4	05	4.4
900	28	844	-7.4	-13.5	10	4.4
850	28	1,285	-10.1	-15.7	10	4.0
800	28	1,751	-11.6	-19.4	10	3.6
750	28	2,244	-13.8	-22.0	12	4.0
700	28	2,765	-16.6	-25.9	14	4.2
650	28	3,319	-19.8	-29.1	15	4.4
600	28	3,909	-23.4	-32.3	15	5.6
550	28	4,540	-27.6	-36.2	15	6.3
500	28	5,219	-32.1	-41.5	16	6.5
450	28	5,955	-36.7	-44.4	17	7.8
400	28	6,762	-42.4	-48.3	17	11.4
350	28	7,654	-48.3		17	13.6
300	28	8,654	-52.9		17	13.2
250	28	9,830	-59.3		18	12.5
200	28	11,272	-51.1		19	11.4
175	28	12,143	-49.9		19	11.8
150	28	13,153	-49.6		20	11.3
125	28	14,353	-48.8		20	11.4
100	28	15,820	-49.2		21	12.2
90	28	17,283	-49.1		22	11.7
70	28	18,160	-49.5		21	12.0
50	28	19,169	-49.7		22	12.3
40	28	20,367	-49.5		23	12.2
30	28	21,826	-50.1		23	11.4
20	25	23,709	-49.5		24	11.8
15	24	24,908	-49.1		24	11.1
10	24	26,370	-46.1		25	11.8
7	21	28,284	-47.8		25	14.9
5	6	30,981	-46.3			

RAWINSONDE DATA

Average monthly values

MONETT, MO
970 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m.p.s.)
SFC	30	438	.0	-2.9	27	1.0
1000						
950	30	842	1.7	-5.4	29	2.6
900	30	1,238	1.1	-8.7	31	6.0
850	30	1,647	.5	-12.0	31	7.9
800	30	2,083	-.7	-12.7	30	9.4
750	30	2,547	-2.3	-16.4	29	11.2
700	30	3,043	-4.3	-18.2	29	13.7
650	30	3,625	-7.0	-21.7	29	14.3
600	30	4,255	-10.4	-24.7	29	17.7
550	30	4,910	-14.4	-28.7	29	19.1
500	30	5,625	-19.0	-33.1	29	21.2
450	30	6,422	-24.4	-37.3	28	22.8
400	30	7,350	-30.5	-43.2	28	25.6
350	30	8,488	-37.4	-47.7	28	27.4
300	30	9,842	-45.3		27	28.3
250	30	10,628	-52.4		27	30.1
200	30	11,850	-58.3		27	33.6
175	30	12,688	-59.1		27	32.8
150	30	13,653	-60.0		27	30.1
125	30	14,787	-61.7		28	28.7
100	29	16,167	-62.9		28	26.3
80	29	17,542	-62.9		28	15.1
70	29	18,366	-62.5		28	13.1
60	29	19,319	-61.7		28	10.6
50	28	20,447	-60.7		29	7.6
40	24	21,843	-59.4		30	4.9
30	26	23,648	-57.6		31	3.4
25	27	24,812	-55.5		31	4.0
20	27	26,241	-54.4		29	4.9
15	18	28,094	-53.1		30	5.0
10	9	30,805	-50.7			
7						

[illegible]
[illegible]

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m.p.s.)
SFC	29	187	2.1	-2.6		.7
1000	14	223	-.1	-6.2		.5
950	29	590	2.8	-4.9		4.1
900	29	1,026	1.6	-8.0		6.2
850	29	1,485	.3	-12.4		8.0
800	29	1,970	-1.6	-14.6		10.7
750	29	2,482	-3.4	-17.4		13.7
700	29	3,024	-4.9	-18.7		16.3
650	29	3,606	-7.5	-21.1		20.0
600	29	4,224	-10.8	-23.9		21.9
550	29	4,890	-14.7	-26.4		23.5
500	29	5,605	-19.2	-30.6		29.0
450	29	6,382	-24.1	-35.3	27	32.6
400	29	7,231	-29.9	-40.2	27	34.3
350	29	8,172	-37.1	-45.6	26	36.1
300	29	9,221	-44.4		26	40.7
250	29	10,421	-51.9		26	44.8
200	29	11,848	-59.8		26	47.3
175	29	12,688	-59.2			47.4
150	29	13,649	-60.8		27	48.1
125	29	14,778	-62.6		27	43.2
100	28	16,151	-64.4		27	25.1
80	28	17,517	-63.9			
70	28	18,337	-62.9			16.1
60	28	19,287	-62.5			12.1
50	28	20,410	-60.5		27	9.2
40	28	21,805	-58.6			6.7
30	26	23,631	-56.7			5.3
25	27	24,788	-55.4		29	4.6
20	27	26,217	-54.1			3.9
15	18	28,088	-52.3			7.5
10	8	30,700	-51.8			12.6
7		33,194	-48.1			

[illegible]
[illegible]

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Direction (tens of deg)	Speed (m.p.s.)
SFC		5	-8.7	-3.		2.9
1000		71	-15.0			2.9
950	30	4[illegible]	-7.3	-11.8		3.6
900		435	-8.6	-13.5	10	3.8
850		1,277	-10.1	-15.4	09	2.1
800		1,743	-11.7	-18.6	08	2.2
750		2,235	-14.3	-23.2		2.2
700		2,755	-17.3	-27.5		2.3
650	30	3,308	-20.0	-30.7		2.1
600	30	3,897	-23.5	-34.5		2.6
550		4,528	-27.8	-38.2		2.5
500	30	5,207	-32.5	-41.0		2.9
450	30	5,942	-37.[illegible]	-43.7		[illegible]
400	30	6,746	-42.9	-47.1		[illegible]
350	30	7,639	-48.3			[illegible]
300	30	8,[illegible]	-52.9			[illegible]
250	30	9,812	-53.3			[illegible]
200		11,259	-50.3			[illegible]
175		12,132	-49.4			[illegible]
150	30	13,145	-48.6			[illegible]
125		14,344	-48.4			[illegible]
100		15,8[illegible]	-49.1			[illegible]
80	30	17,276	-49.1			[illegible]
70	30	18,153	-49.2			[illegible]
60	30	19,144	-49.3			[illegible]
50	[illegible]	[illegible]	-49.8			[illegible]
40	29	[illegible]	-49.8			[illegible]
30	30	23,702	-49.3			[illegible]
25	[illegible]	24,912	-48.0			[illegible]
20	[illegible]	[illegible]	-47.9			[illegible]
15	[illegible]	[illegible]	-45.9			[illegible]

[illegible]
[illegible]

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature °C	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m.p.s.)
SFC		[illegible]	[illegible]	[illegible]		1.5
1000						
950		[illegible]	[illegible]	-17.5		
900		784	-4.1	-12.7		
850		[illegible]	-7.5	-15.1		
800		1,902	-9.0	-15.2		
750		2,399	[illegible]	-21.4		
700		2,928	[illegible]	-23.4		
650		3,489	-15.7	-27.2		
600		4,080	-19.5	[illegible]		
550		[illegible]	[illegible]	-33.8		
500		5,421	[illegible]	[illegible]		
450		6,171	-32.6	-40.2		
400		[illegible]	[illegible]	[illegible]		
350		[illegible]	-44.2			
300		[illegible]	-49.5			
250		10,103	-52.7			
200		11,537	-53.6			
175		12,397	[illegible]			
150		13,388	-54.3			
125		14,556	-55.1			
100		15,975	-56.3			
80		17,391	-57.1			
70		[illegible]	[illegible]			
60		19,209	[illegible]			
50		[illegible]	[illegible]			
40		[illegible]	[illegible]			
30		23,591	[illegible]			
25		24,746	[illegible]			
20		26,168	-56.3			
15		28,015	-55.[illegible]			
10		[illegible]	-54.3			

OMAHA, NE
972 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m.p.s.)
SFC	30	403	-3.9	-8.2	30	1.4
1000						
950	30	580	-1.3	-8.5	30	4.0
900	30	1,013	-.9	-11.1	30	7.5
850	30	1,468	-2.1	-13.5	30	9.0
800	30	1,948	-4.0	-16.2	30	10.4
750	30	2,455	-6.2	-18.7	30	12.2
700	30	2,992	-8.8	-21.2	30	13.9
650	30	3,564	-11.5	-23.5	31	16.1
600	30	4,176	-14.7	-27.0	30	18.1
550	30	4,828	-18.5	-31.2	30	19.8
500	30	5,532	-23.6	-35.3	30	20.8
450	30	6,295	-28.3	-38.5	30	23.4
400	30	7,129	-34.4	-43.5	30	25.9
350	30	8,053	-40.7	-45.7	30	27.5
300	30	9,085	-47.3		29	27.2
250	30	10,273	-53.4		29	28.4
200	30	11,699	-55.7		29	26.6
175	30	12,549	-56.0		29	25.8
150	29	13,530	-56.8		29	23.2
125	28	14,679	-57.7		29	22.3
100	28	16,080	-59.1		29	16.1
80	28	17,477	-59.4		30	13.6
70	28	18,313	-59.9		30	10.9
60	28	19,276	-59.6		31	8.3
50	28	20,418	-59.1		31	6.6
40	28	21,805	-58.1		32	4.7
30	28	23,547	-56.7		34	4.4
25	28	24,706	-55.6		35	3.5
20	28	26,212	-55.2		33	5.1
15	28	28,072	-54.3		32	6.3
10	7	30,711	-54.1			
7						

PAGE PAGE, [illegible]
[illegible]

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m.p.s.)
SFC	30	5	27.3	[illegible]		3.3
1000	30	92	27.1	23.1		3.5
950	30	540	23.5	21.1		3.8
900	30	1,018	21.6	[illegible]		3.5
850	30	1,511	17.7	14.3		3.1
800	30	2,022	15.6	[illegible]		2.8
750	30	2,575	[illegible]	6.7		2.6
700	30	3,153	9.6	2.1		1.8
650	30	3,764	6.0	-2.7		1.5
600	30	4,420	3.1	-9.3		1.3
550	30	5,121	-.8	-12.7		1.8
500	30	5,875	-5.6	-19.4		2.6
450	30	6,695	-10.5	-24.4	20	3.6
400	30	7,592	-16.1	-29.9	5	4.7
350	30	8,587	-23.1	-36.7	5	[illegible]
300	30	9,694	-31.7	[illegible]	5	7.4
250	30	10,957	-41.7		5	9.4
200	30	12,430	-53.0		5	11.7
175	30	13,275	-60.6		5	12.6
150	29	14,218	-67.7		5	14.0
125	28	15,294	-75.1		25	8.7
100	28	16,570	-81.2			9.1
80	28	17,828	-79.1		28	4.5
70	28	18,596	-74.8		21	3.2
60	28	19,507	-69.2			3.9
50	28	20,612	-63.9			7.2
40	28	21,992	-59.9			10.6
30	28	23,811	-55.4			15.0
25	28	24,980	-53.5			17.4
20	28	26,435	-48.3			18.8
15	28	28,350	-43.5			18.0
10	7	30,715	-42.8			
7		[illegible]	-42.5			

[illegible]
[illegible]

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m.p.s.)
SFC		[illegible]	-4.[illegible]	-7.2		2.1
1000		274	-6.1	-10.4		
950		[illegible]	-1.7	-8.2		
900		[illegible]	-3.2	-11.[illegible]		[illegible]
850		1,448	-4.7	-14.3		
800		1,924	-6.3	-16.4		
750		2,428	-7.9	-19.6		
700		2,961	-10.5	-[illegible]		
650		3,529	-13.0	-25.8		
600		4,136	-16.1	-28.3		
550		4,786	-21.2	-[illegible]		
500		[illegible]	-25.0	-35.3		
450		[illegible]	-30.0	-39.5		
400		[illegible]	-35.3	-43.2		
350		[illegible]	-41.0	-44.7		
300		9,[illegible]	-46.8			
250		10,270	-52.1			
200		11,655	-54.7			
175		12,508	-55.4			
150		13,480	-[illegible]			
125		14,643	-57.7			
100		[illegible]	-58.8			
80		17,447	-59.7			
70		[illegible]	-[illegible]			
60		19,255	-59.9			
50		[illegible]	-59.2			
40		21,793	-56.4			
30		23,617	-[illegible]			
25		24,775	-55.5			
20		26,202	-54.4			
15		[illegible]	-53.8			
10		[illegible]	-52.5			

[illegible]
[illegible]

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m.p.s.)
SFC		[illegible]	[illegible]	[illegible]		
1000						
950		[illegible]	[illegible]	[illegible]		
900		[illegible]	[illegible]	[illegible]		
850		[illegible]	[illegible]	[illegible]		
800		[illegible]	[illegible]	[illegible]		
750		[illegible]	[illegible]	[illegible]		
700		[illegible]	[illegible]	[illegible]		
650		[illegible]	[illegible]	[illegible]		
600		[illegible]	[illegible]	[illegible]		
550		[illegible]	[illegible]	[illegible]		
500		[illegible]	[illegible]	[illegible]		
450		[illegible]	[illegible]	[illegible]		
400		[illegible]	[illegible]	[illegible]		
350		[illegible]	[illegible]	[illegible]		
300		[illegible]	[illegible]	[illegible]		
250		[illegible]	[illegible]	[illegible]		
200		[illegible]	[illegible]	[illegible]		
175		[illegible]	[illegible]	[illegible]		
150		[illegible]	[illegible]	[illegible]		
125		[illegible]	[illegible]	[illegible]		
100		[illegible]	[illegible]	[illegible]		
80		[illegible]	[illegible]	[illegible]		
70		[illegible]	[illegible]	[illegible]		
60		[illegible]	[illegible]	[illegible]		
50		[illegible]	[illegible]	[illegible]		
40		[illegible]	[illegible]	[illegible]		
30		[illegible]	[illegible]	[illegible]		
25		[illegible]	[illegible]	[illegible]		
20		[illegible]	[illegible]	[illegible]		
15		[illegible]	[illegible]	[illegible]		
10		[illegible]	[illegible]	[illegible]		

PORT AND, ME
1007 MB

Standard pressure surface (mb)	No. of observations	Dynamic height (meters)	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (tens of deg)	Resultant Wind Speed (m.p.s.)
SFC	29	22	-.5	-5.6	27	2.1
1000	29	87	.5	-4.1	27	2.9
950	29	487	-1.1	-6.2	28	4.9
900	29	917	-3.8	-7.8	29	8.1
850	29	1,366	-5.8	-11.2	29	9.3
800	29	1,840	-7.6	-13.6	28	10.6
750	29	2,340	-9.6	-16.3	27	13.1
700	29	2,871	-12.1	-20.9	27	15.2
650	29	3,435	-15.2	-24.4	26	17.5
600	29	4,036	-18.6	-27.9	26	20.1
550	29	4,680	-22.4	-32.8	26	22.1
500	29	5,374	-26.9	-38.1	26	23.7
450	29	6,127	-31.7	-43.3	26	25.5
400	29	6,955	-37.0	-47.0	26	27.9
350	29	7,867	-42.1	-46.1	26	28.1
300	29	8,896	-47.0		26	31.1
250	29	10,094	-50.3		26	31.8
200	29	11,545	-52.3		26	31.5
175	29	12,407	-53.1		26	30.9
150	29	13,398	-54.2		26	27.7
125	29	14,564	-55.6		26	25.4
100	29	15,998	-56.3		26	19.4
80	29	17,395	-57.8		26	16.8
70	29	18,238	-57.3		26	13.9
60	29	19,211	-58.0		26	11.4
50	29	20,350	-58.2		26	11.2
40	28	21,771	-57.5		27	9.3
30	27	23,594	-57.0		27	8.1
25	27	24,751	-56.1		27	9.0
20	26	26,180	-55.3		27	9.0
15	23	27,989	-55.2		27	12.7
10	19	30,557	-54.4		28	15.1

RAWINSONDE DATA

Average monthly values

NOVEMBER 1976

Standard pressure surface mb	SALEM, IL 999 MB						SALEM, OR 1015 MB						SAN DIEGO, CA 1021 MB						SAN JUAN, P. R. 1014 MB					
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s
SFC	30	174	-1.4	-6.1	29	1.3	30	61	4.6	3.3	21	.6	3	1,288	-.1	-4.8	14	1.8	30	124	13.3	6.2	04	.9	30	6	23.1	21.7	11	1.7
1000	14	205	-2.2	-8.2	32	1.8	30	180	7.3	5.0	34	.4							24	145	15.9	4.0	3	1.2	30	126	24.2	21.6	11	3.8
950	30	578	.3	-8.2	30	6.8	30	604	9.4	2.8	13	.1							30	574	18.1	1.5	1	.9	30	575	21.9	18.7	11	7.0
900	30	1,010	-1.2	-11.3	30	8.8	30	1,053	9.7	-2.4	21	2.0							30	1,035	15.7	-1.4	11	1.0	30	1,044	20.8	15.2	11	7.3
850	30	1,465	-2.6	-13.8	29	10.4	30	1,526	8.	-6.1	23	3.1	30	1,543	5.0	-5.6	16	.2	30	1,518	13.4	-5.1	13	1.7	30	1,533	18.0	10.9	11	6.4
800	30	1,945	-3.7	-16.2	29	12.4	30	2,024	5.7	-9.4	15	3.7	30	2,037	3.4	-8.4	26	.7	30	2,025	10.4	-8.0	12	2.7	30	2,047	13.4	5.0	11	6.3
750	30	2,453	-5.5	-18.1	29	14.3	30	2,550	3.0	-11.9	26	5.1	30	2,558	.3	-10.9	33	3.5	30	2,559	7.7	-11.7	21	4.5	30	2,590	11.7	-.9	11	6.3
700	30	2,992	-7.5	-20.7	29	16.9	30	3,105	-.1	-14.0	27	6.3	30	3,108	-2.5	-14.9	32	4.8	30	3,124	4.4	-15.3	36	4.7	30	3,165	9.2	-5.6	10	5.4
650	30	3,567	-10.0	-22.6	28	18.9	30	3,695	-3.4	-16.3	28	7.2	30	3,693	-5.7	-17.3	32	5.8	30	3,723	1.0	-17.7	35	5.4	30	3,775	6.0	-10.1	10	5.7
600	30	4,180	-13.4	-25.6	28	21.3	30	4,323	-7.2	-19.8	28	8.2	30	4,316	-9.3	-22.4	32	1.4	30	4,362	-3.1	-20.8	35	6.4	30	4,427	2.4	-14.5	09	5.2
550	30	4,837	-17.5	-29.5	29	23.8	30	4,998	-11.5	-23.5	28	9.9	30	4,983	-13.7	-26.8	32	12.1	30	5,044	-8.1	-25.0	35	7.0	30	5,125	-1.7	-18.1	08	5.7
500	30	5,544	-21.9	-33.9	28	26.4	30	5,720	-16.5	-28.8	28	11.7	30	5,701	-18.3	-32.3	32	14.3	30	5,776	-13.7	-29.7	35	6.9	30	5,877	-6.2	-24.1	08	5.9
450	30	6,313	-26.7	-39.3	28	30.9	30	6,524	-22.0	-33.7	28	12.4	30	6,479	-23.9	-36.3	32	15.4	30	6,568	-19.7	-35.1	34	7.7	30	6,689	-11.5	-30.9	08	5.8
400	30	7,153	-32.5	-44.1	28	33.4	30	7,359	-28.6	-39.4	28	13.7	30	7,328	-30.2	-40.6	32	17.6	29	7,432	-26.4	-41.7	35	9.6	30	7,590	-.7	-37.7	08	5.6
350	30	8,085	-38.7	-48.5	27	35.8	30	8,303	-36.2	-44.7	28	15.3	30	8,268	-37.2	-44.0	32	19.1	29	8,385	-34.0	-47.7	35	11.4	30	8,573	-25.1	-45.3	08	5.9
300	30	9,125	-45.5		27	39.0	30	9,352	-44.5		29	17.4	4	9,312	-45.2		32	20.7	29	9,443	-42.4	-52.1	34	13.0	30	9,672	-33.5	-48.1	08	6.5
250	29	10,328	-52.8		27	39.5	30	10,549	-53.5		5	19.9	29	10,507	-54.0		32	23.1	29	10,651	-51.0		33	14.8	30	10,929	-43.3		06	7.
200	29	11,756	-56.0		27	38.3	30	11,957	-61.1		28	20.6	29	11,918	-60.2		32	23.2	29	12,078	-58.2		32	13.0	30	12,354	-54.9			8.3
175	29	12,603	-57.0		27	34.7	30	12,783	-62.4		29	19.3	29	12,747	-61.6		31	21.4	29	12,914	-61.0		31	13.0	30	13,231	-60.4		21	8.1
150	29	13,577	-57.8		27	30.6	30	13,735	-61.9		29	18.8	29	13,705	-61.4		31	19.2	29	13,867	-62.9		30	13.4	30	14,175	-61.4		35	6.5
125	29	14,724	-59.4		27	27.5	30	14,861	-62.9		29	14.1	29	14,831	-63.1		31	17.5	29	14,982	-66.0		29	13.7	30	15,286	-63.0		35	5.9
100	29	16,116	-60.7		27	20.9	30	16,231	-63.6		29	11.4	29	16,198	-64.1		31	14.5	28	16,329	-67.9		30	10.5	30	16,643	-70.0		35	5.8
80	29	17,503	-60.8		28	16.7	29	17,603	-62.1		31	7.4	29	17,565	-64.2		32	9.2	28	17,668	-68.3		33	6.7	30	17,995	-78.1		04	2.6
70	29	18,335	-60.3		28	13.1	28	18,432	-62.1		32	5.8	28	18,393	-63.5		33	7.9	28	18,473	-66.3		31	5.4	30	18,595	-74.4			2.9
60	29	19,296	-60.0		28	11.3	27	19,385	-61.5		34	4.5	28	19,332	-62.5		34	4.9	28	19,409	-65.7		33	4.0	30	19,493	-69.6		10	3.9
50	29	20,437	-59.1		28	9.1	27	20,519	-60.3		01	4.4	28	20,460	-61.6		36	4.8	28	20,523	-63.2		1	2.4	29	20,637	-63.7		10	4.4
40	29	21,838	-58.2		29	9.5	27	21,912	-59.6		03	4.7	28	21,849	-60.1		02	4.7	28	21,909	-60.7		35	1.7	29	21,981	-59.2			5.2
30	24	23,661	-56.2		28	4.2	24	23,720	-57.1		06	5.8	24	23,650	-58.2		03	4.4	26	23,716	-56.7		28	2.4	29	23,770	- 3.5		10	4.7
25	24	24,824	-54.8		30	5.4	21	24,869	-54.7		05	6.9	24	24,803	-56.9		04	4.	25	24,879	-54.9		29	4.7	29	24,987	- 1.4		4	1.0
20	24	26,251	-53.5		30	5.3	19	26,294	-55.5		06	8.6	24	26,223	-55.5		03	4.7	24	26,314	-53.1		27	7.1	29	26,444	-9.6		11	13.4
15	23	28,095	-52.4		29	8.0	16	28,139	-53.3		07	10.6	19	28,106	-54.6		04	9.3	22	28,178	-51.4		27	11.7	27	28,340	-46.0		01	1.9
10	22	30,713	-51.7		29	12.6	5	30,733	-50.7															24	31,142	-43.9			3.6
7	5	32,967	-50.3																					17	33,469	-40.0			2.8

Standard pressure surface mb	SAULT STE MARIE, MI 983 MB						SPOKANE, WA 936 MB						TAMPA BAY, FL 1018 MB						TOPEKA, KS 999 MB						[illegible]
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	[illegible]
SFC	29	221	-3.6	-6.6	29	1.4	30	720	.3	-1.9	28	.8	31	8	13.4	11.3	05	1.4	31	268	-3.4	-7.8	29	1.2	31	2	28.3	24.7		2.1
1000													3	141	15.6	10.3	04	2.8						31	7	26.2	24.0	07	3.8
950	29	494	-3.8	-6.4	30	4.0							31	537	15.0	9.8	02	4.4	3	549	1.4	-.2	32	6.2	31	543	3.9	21.4		5.7
900	29	919	-6.6	-8.0	30	6.2	30	1,058	2.1	-2.2	16	1.2	3	1,054	13.8	6.3	26	3.4	3	1,035	.1	-10.4	32	7.4	31	1,050	21.2	17.6		6.7
850	29	1,364	-9.3	-10.7	30	7.8	30	1,520	2.4	-5.5	24	3.2	3	1,526	12.3	1.1	27	4.	3	1,493	-.1	-12.9	31	8.3	30	1,511	18.5	14.1		6.3
800	29	1,831	-11.5	-14.5	30	8.8	30	2,010	1.6	-8.7	28	5.5	30	2,043	10.6	-2.3	26	5.1	3	1,977	-1.3	-15.0	31	10.2	3	2,029	16.2	10.3		6.1
750	29	2,324	-13.6	-19.2	30	9.1	30	2,529	-.3	-12.4	28	6.8	3	2,578	8.4	-5.1	26	6.7	30	2,488	-4.1	-16.0	31	11.7	30	2,577	13.4	7.5		5.5
700	29	2,846	-15.9	-23.9	30	9.4	30	3,078	-2.6	-15.3	29	7.9	30	3,146	5.3	-7.9	25	7.1	30	3,030	-6.6	-19.2	30	13.4	30	3,155	10.3	2.8		5.4
650	29	3,402	-18.5	-27.2	29	9.5	30	3,662	-6.2	-19.2	29	9.9	30	3,748	2.3	-11.9	25	11.0	30	3,606	-8.9	-21.8	30	16.3	30	3,774	7.0	-.4		5.2
600	29	3,996	-21.8	-30.4	29	10.3	30	4,280	-10.1	-23.5	25	11.4	30	4,391	-1.5	-14.9	25	13.2	30	4,222	-12.1	-24.6	30	19.8	30	4,424	3.4	-4.9		5.2
550	29	4,632	-25.5	-34.3	29	12.1	30	4,950	-14.3	-27.7	25	12.8	30	5,078	-5.6	-19.5	25	14.9	30	4,861	-15.9	-27.9	29	21.4	30	5,125	-.8	-8.5		5.1
500	29	5,316	-29.7	-37.7	29	13.4	30	5,667	-18.9	-31.1	26	14.7	30	5,820	-11.2	-24.7	25	16.7	30	5,595	-20.8	-32.4	29	23.6	30	5,911	-4.7	-13.3		6.2
450	28	6,060	-34.4	-41.4	30	14.8	30	6,443	-24.5	-35.6	30	16.4	30	6,624	-15.3	-27.2	25	21.9	30	6,366	-27.2	-37.3	29	24.4	30	6,775	-9.3	-18.6		6.2
400	28	6,876	-39.4	-45.3	29	16.1	30	7,290	-30.8	-41.1	30	19.0	30	7,503	-21.4	-31.4	25	24.9	29	7,201	-32.7	-41.9	28	27.7	31	7,680	-14.7	-24.7	09	6.4
350	28	7,781	-45.1		29	17.7	30	8,227	-37.9	-45.8	31	21.5	30	8,477	-28.1	-38.2	26	27.3	28	8,130	-39.3	-45.3	28	29.1	29	8,607	-21.3	-32.8		5.4
300	28	8,798	-49.8		29	18.8	30	9,269	-45.8		31	24.8	30	9,543	-36.0	-46.6	26	30.1	29	9,166	-46.6		28	30.6	29	9,773	-29.7	-41.1		5.0
250	27	9,990	-52.8		29	19.3	30	10,459	-54.7		31	25.0	30	10,804	-45.8		26	34.6	28	10,357	-53.2		28	29.3	29	11,005	-40.1	-50.1		5.1
200	27	11,432	-51.9		29	18.5	30	11,804	-60.5		30	25.5	3	12,253	-57.1		26	38.1	28	11,781	-57.1		28	28.6	28	12,476	-46.0		1	4.4
175	27	12,298	-51.8		29	17.9	30	12,695	-60.2		30	23.4	30	13,087	-62.7		26	40.4	28	12,624	-57.7		25	28.4	29	13,326	-59.8			3.9
150	27	13,299	-52.0		29	16.3	29	13,659	-59.1		30	21.1	30	14,024	-67.9		26	37.4	28	13,596	-58.5		28	25.4	29	14,271	-67.0			2.6
125	27	14,477	-53.2		29	14.9	29	14,795	-60.7		30	18.1	30	15,107	-72.2		26	33.3	27	14,738	-59.4		29	22.3	29	15,349	-75.1			2.5
100	27	15,912	-54.2		29	13.1	29	16,180	-61.3		30	13.4	3	16,414	-74.0		26	28.4	26	16,133	-61.0		29	16.2	29	16,822	- 0.0			1.4
80	27	17,338	-55.7		29	9.9	29	17,568	-60.6		31	10.1	29	17,716	-72.7		26	24.1	25	17,522	-61.6		29	13.4	29	17,940	- 0.0		09	4.2
70	27	18,188	-56.1		30	9.2	29	18,401	-60.1		32	8.4	29	18,505	-70.4		26	20.8	25	18,350	-61.1		30	10.8	29	18,647	-74.5			2.7
60	27	19,188	-56.2		30	8.6	28	19,362	-59.0		34	6.7	28	19,440	-67.0		26	17.4	25	19,310	-60.6		29	8.5	29	19,554	-69.9			1.4
50	26	20,323	-56.5		30	7.1	28	20,504	-59.1		36	5.2	28	20,562	-63.3		25	14.9	25	20,447	-59.7		31	6.7	28	20,662	-60.1			4.7
40	26	21,739	-56.5		31	7.4	27	21,910	-58.0		01	5.4	28	21,925	-59.6		24	9.3	24	21,841	-58.8		31	4.0	28	22,024	- 0.0		09	13.2
30	24	23,506	-56.2		32	4.7	26	23,726	-56.9		03	5.4	24	23,740	-55.8		27	7.2	23	23,658	-56.8		32	2.4	28	23,853	- 0.7			27.2
25	24	24,716	-56.5		33	7.9	26	24,882	-56.4		04	5.9	24	24,906	-54.1		27	5.4	23	24,818	-55.2		33	2.4	27	25,005	-52.1		06	20.4
20	23	26,139	-56.1		33	8.6	23	26,311	-55.1		04	7.6	24	26,345	-51.6		27	12.	22	26,261	-56.3		33	4.1	27	26,467	-47.8		04	29.8
15	21	27,974	-55.3		32	10.5	15	28,171	-54.1		05	10.1	27	28,218	-49.3		27	16.4	18	28,068	-54.0		33	4.1	17	28,393	-42.0		01	24.3
10	18	30,540	-55.3		31	12.3							17	30,899	-46.4		25	14.9	7	30,659	-51.7				7	31,191	- 0.0			
7													5	33,229	-43.2													

Standard pressure surface mb	TUCSON, AZ 926 MB						VANDENBERG AFB, CA 1,004 MB						VICTORIA, TX 1017 MB						NAVY, U.S., PACIFIC AREA 1014 MB						[illegible]
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m p s	[illegible]
SFC	30	789	10.8	.3	13	3.2	30	100	11.7	6.8	05	.0	3	33	8.6	6.9	01	2.1	30	5	27.1	22.9	09	8.1	30	4	28	-1.1	2	.2
1000							28	151	15.	8.2	07	.2	3	171	10.8	6.4	03	2.4	3	142	25.7	21.4	09	9.3	30	127	26.6	-1.1	27	4.2
950							30	585	14.4	2.0	36	6.2	30	599	9.9	4.7	04	2.7	3	592	21.7	10.4	08	10.3	30	550	24.6	-1.1	3	7.2
900	30	1,031	13.7	-1.3	12	4.7	30	1,047	10.0	-1.9	01	1.6	3	1,049	9.8	3.4	31	1.2	3	1,006	18.4	15.0	9	10.6	30	994	23.3	-2.0	2	7.8
850	30	1,611	11.6	-4.2	12	3.5	30	1,536	13.7	-5.4	02	1.3	3	1,523	9.0	1.1	27	2.9	30	1,458	15.9	1.4	3	10.	30	1,444	.4	-11.3	2	9.9
800	30	2,215	8.6	-6.7	13	3.2	30	2,038	10.	-8.1	02	1.4	3	2,025	7.7	-2.5	28	4.2	3	1,955	14.4	9.1	09	10.1	31	1,937	-1.3	-13.6	2	7.1
750	30	2,845	5.1	-9.2	13	1.9	30	2,574	8.2	-11.0	06	1.8	30	2,554	4.7	-6.2	27	4.3	30	2,469	12.8	-3.5	9	9.8	31	2,445	-4.1	-15.6	27	12.5
700	30	3,485	2.3	-14.1	07	1.3	30	3,130	5.4	-16.1	36	2.6	30	3,114	2.2	-10.8	26	7.7	3	3,185	10.1	-9.7	09	9.7	31	2,986	-5.4	- .7	27	17.5
650	30	3,700	-1.1	-17.6	35	2.0	30	3,740	1.5	-17.0	34	3.3	3	3,769	-.7	-14.5	26	8.9	30	3,798	6.9	-12.8	09	9.4	3	3,573	-8.1	-2.2	27	22.2
600	30	4,333	-5.1	-21.8	35	2.9	30	4,370	-3.1	-20.3	33	4.0	3	4,344	-4.5	-18.5	25	12.4	30	4,451	2.1	-16.9	09	9.1	30	4,193	- .0	-23.6	27	24.9
550	30	5,011	-9.7	-26.6	34	3.9	30	5,062	-8.6	-23.9	32	4.7	3	5,024	-8.5	-22.9	25	13.1	3	5,150	-1.0	-20.3	08	8.4	30	4,854	- 5.3	-22.8	27	29.5
500	30	5,739	-15.2	-31.0	35	5.1	30	5,794	-13.6	-29.1	36	5.3	3	5,757	-12.8	-28.8	25	15.5	30	5,903	-5.7	-24.8	8	8.5	30	5,564	-19.7	-3..	27	34..
450	30	6,526	-21.1	-36.4	35	6.0	30	6,587	-19.6	-34.6	32	5.7	30	6,553	-18.2	-32.8	25	17.8	30	6,721	-10.9	-27.4	07	7.6	30	6,344	-24.0	-37.3	27	36.8
400	30	7,384	-28.1	-41.7	35	6.4	30	7,450	-26.3	-41.1	32	6.3	30	7,422	-24.5	-38.1	25	19.4	3	7,615	-17.4	-32.8	07	6.5	30	7,191	- .0	-42.9	27	4..
350	30	8,331	-35.5	-47.3	34	6.3	30	8,404	-33.7	-46.1	32	6.4	30	8,384	-31.4	-43.4	25	24.4	30	8,604	-24.8	-39.6	07	6.6	30	8,130	-10.8	-46.1	27	45.2
300	30	9,383	-43.3		33	7.9	29	9,470	-42.1	-49.6	32	9.0	30	9,455	-39.4	-47.5	25	31.0	30	9,703	-33.4	-48.0	06	5.8	30	9,150	-13.5	-44.2	27	51.6
250	30	10,591	-50.6		32	10.9	29	10,680	-51.0		32	11.1	30	10,681	-47.7		25	36.7	3	10,958	-43.0		06	5.4	30	10,387	- .4		2	56.8
200	30	12,023	-56.9		29	13.2	29	12,102	-57.4		31	11.3	30	12,123	-57.1		25	43.6	30	12,425	-54.2		01	2.7	30	11,935	-55.4		26	53.9
175	30	12,864	-59.7		29	15.3	29	12,932	-62.2		31	13.3	30	12,959	-62.0		25	42.8	30	13,270	-60.4		36	3.5	30	12,674	-6.5		26	44.4
150	30	13,824	-61.6		29	14.9	28	13,883	-63.6		30	10.7	30	13,893	-66.2		26	36.7	30	14,215	-67.3		36	2.6	30	13,545	-59.1		26	44.1
125	30	14,946	-64.9		29	14.7	28	14,995	-66.1		30	9.7	30	15,000	-68.8		26	31.9	3	15,297	-73.7		32	3..	30	14,752	-..4		26	38.2
100	30	16,296	-67.7		29	12.1	28	16,340	-68.1		28	8.0	27	16,321	-71.2		26	23.6	29	16,580	-79.4		35	5.4	30	16,160	-72.6		26	30.2
80	29	17,640	-68.1		29	8.3	27	17,686	-67.7		31	5.1	27	17,642	-70.3		26	14.7	28	17,837	-81.1		07	7.4	28	17,539	-82.5		26	23.5
70	28	18,444	-66.7		30	6.3	25	18,490	-67.0		32	4.1	27	18,467	-68.5		27	12.9	28	18,594	-78.6		08	8.1	28	18,365	-81.3		26	17.6
60	28	19,379	-65.3		30	3.9	25	19,424	-65.4		34	2.9	27	19,367	-66.1		27	7.7	27	19,486	-73.1		08	8.0	28	19,324	-80.4		26	14.9
50	28	20,495	-63.6		30	2.3	25	20,540	-63.1		02	2.1	28	20,483	-63.2		27	7.5	26	20,578	-65.8		08	6.3	27	20,451	-79.7		26	11.3
40	25	21,878	-60.6		30	2.2	25	21,920	-60.6		02	2.5	27	21,863	-60.1		27	8.9	26	21,950	-60.9		08	5.9	27	21,845	-..9		26	8.0
30	23	23,686	-56.5		28	4.0	25	23,725	-57.4		36	1.4	27	23,674	-56.4		27	6.9	24	23,766	-56.0		09	9.0	28	23,674	-56.7		27	7.9
25	23	24,849	-54.4		29	4.7	25	24,882	-55.8		34	2.1	27	24,835	-55.2		28	7.0	24	24,933	-52.9		09	9..	28	24,836	-..0		27	8.7
20	20	26,287	-52.7		28	6.4	24	26,307	-53.5		05	2.2	22	26,265	-53.5		28	7.2	21	26,381	-50.8		09	7.2	27	26,278	-53.9		29	10.1
15	13	28,171	-51.0		28	7.3	23	28,181	-52.1		03	3.8	22	28,139	-50.9		28	1.3	17	28,280	-48.4		07	5.4	28	28,134	-52.4		29	10.4
10							18	30,779	-50.3		27	7.0	16	30,781	-48.8		27	15.7	15	30,953	-44.4		33	1.6	17	30,788	-51.3		28	10.7
7							12	33,141	-47.4				8	33,081	-46.1				5	33,325	-45.9							

RAWINSONDE DATA

Average monthly values

OCTOBER 1975

WASHINGTON DULLES INT. AP
1008 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	85	-1.2	-4.9	29	1.2
1000	23	159	1.9	-4.5	29	2.1
950	30	550	2.2	-6.1	29	2.1
900	30	985	-.4	-8.5	30	2.5
850	30	1,440	-2.7	-11.5	29	10.5
800	30	1,924	-3.8	-13.4	29	12.0
750	30	2,428	-5.7	-15.4	28	14.4
700	30	2,967	-8.0	-17.3	27	16.7
650	30	3,550	-10.6	-21.9	27	19.4
600	30	4,193	-13.8	-25.3	26	22.8
550	30	4,859	-18.0	-29.2	26	25.0
500	30	5,515	-22.4	-33.7	26	28.8
450	30	6,282	-27.1	-38.2	26	32.3
400	30	7,121	-32.5	-43.0	26	36.4
350	30	8,034	-38.3	-45.9	26	40.7
300	29	9,097	-44.9		26	44.0
250	29	10,239	-50.8		26	49.6
200	29	11,737	-54.9		25	48.5
175	29	12,586	-56.7		26	42.5
150	29	13,562	-58.0		26	37.2
125	28	14,707	-59.8		26	31.7
100	28	16,095	-61.6		26	26.5
80	27	17,413	-61.1		26	20.4
70	27	18,304	-60.1		26	18.2
60	27	19,267	-60.0		27	13.4
50	27	20,405	-59.5		27	12.1
40	27	21,805	-58.1		27	9.0
30	26	23,622	-56.7		27	6.8
25	26	24,788	-55.7		28	6.4
20	26	26,218	-54.7		28	8.1
15	24	28,065	-53.7		28	9.9
10	14	30,728	-51.6		27	13.1
7	4	33,142	-51.7			

[illegible]
1008 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	44	[illegible]	[illegible]	35	[illegible]
1000	30	164	[illegible]	[illegible]	34	[illegible]
950	30	591	[illegible]	[illegible]	32	[illegible]
900	30	1,040	[illegible]	[illegible]	29	[illegible]
850	30	1,513	[illegible]	[illegible]	28	[illegible]
800	30	2,014	[illegible]	[illegible]	27	[illegible]
750	30	2,548	[illegible]	[illegible]	27	[illegible]
700	30	3,103	[illegible]	[illegible]	26	[illegible]
650	30	3,693	[illegible]	[illegible]	26	[illegible]
600	30	4,333	[illegible]	[illegible]	26	[illegible]
550	30	5,014	[illegible]	[illegible]	26	[illegible]
500	30	5,746	[illegible]	[illegible]	26	[illegible]
450	30	6,542	[illegible]	[illegible]	26	[illegible]
400	30	7,410	[illegible]	[illegible]	26	[illegible]
350	30	8,374	[illegible]	[illegible]	26	[illegible]
300	29	9,445	[illegible]	[illegible]	26	[illegible]
250	29	10,672	[illegible]	[illegible]	26	[illegible]
200	29	12,111	[illegible]	[illegible]	25	[illegible]
175	29	12,938	[illegible]	[illegible]	26	[illegible]
150	29	13,882	[illegible]	[illegible]	26	[illegible]
125	28	14,979	[illegible]	[illegible]	26	[illegible]
100	28	16,304	[illegible]	[illegible]	26	[illegible]
80	27	17,434	[illegible]	[illegible]	26	[illegible]
70	27	18,344	[illegible]	[illegible]	26	[illegible]
60	27	19,373	[illegible]	[illegible]	26	[illegible]
50	27	20,693	[illegible]	[illegible]	26	[illegible]
40	27	21,974	[illegible]	[illegible]	26	[illegible]
30	26	23,692	[illegible]	[illegible]	26	[illegible]
25	26	24,857	[illegible]	[illegible]	26	[illegible]
20	26	26,292	[illegible]	[illegible]	26	[illegible]
15	24	28,150	[illegible]	[illegible]	26	[illegible]
10	14	30,911	[illegible]	[illegible]	27	[illegible]
7	4	33,844	[illegible]	[illegible]	27	[illegible]

[illegible]
1008 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	1,312	-2.5	-8.4	33	[illegible]
1000	30	1,387	[illegible]	[illegible]	15	[illegible]
950	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	30	1,541	6.6	-5.1	13	[illegible]
800	30	2,039	6.1	-8.1	27	[illegible]
750	30	2,544	3.5	-10.0	27	[illegible]
700	30	3,102	.6	-13.1	30	[illegible]
650	30	3,716	-2.6	-17.3	31	[illegible]
600	30	4,344	-6.3	-21.1	31	[illegible]
550	30	5,019	[illegible]	[illegible]	31	[illegible]
500	30	5,745	-16.0	-[illegible]	31	[illegible]
450	30	6,531	-21.6	-34.6	31	[illegible]
400	30	7,387	-28.1	-39.[illegible]	31	[illegible]
350	30	8,334	-35.6	-44.[illegible]	31	[illegible]
300	29	9,394	-44.3		31	[illegible]
250	29	10,582	-53.[illegible]		32	[illegible]
200	29	11,992	-61.1		31	[illegible]
175	29	[illegible]	-61.9		31	[illegible]
150	29	13,771	-62.8		31	[illegible]
125	28	14,894	-63.6		31	[illegible]
100	28	16,258	-64.8		31	[illegible]
80	27	17,620	-64.[illegible]		33	[illegible]
70	27	18,443	-63.6		34	[illegible]
60	27	[illegible]	-61.0		32	[illegible]
50	27	21,014	-59.9		34	[illegible]
40	27	[illegible]	[illegible]		34	[illegible]
30	26	23,725	-57.3		33	[illegible]
25	26	24,896	-56.0		33	[illegible]
20	26	26,315	-54.3		34	[illegible]
15	24	28,162	-52.3		34	[illegible]
10	14	[illegible]	[illegible]		[illegible]	[illegible]
7	4	[illegible]	[illegible]		[illegible]	[illegible]

[illegible]
1008 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	16	[illegible]	[illegible]	27	[illegible]
1000	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	30	1,325	[illegible]	[illegible]	[illegible]	[illegible]
800	30	1,824	[illegible]	[illegible]	[illegible]	[illegible]
750	30	2,358	[illegible]	-10.1	[illegible]	[illegible]
700	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
650	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
600	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
350	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
200	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
175	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
150	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
125	28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
80	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

WAP, CAROLINE IS.
1008 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	30	14	28.2	24.7	09	2.8
1000	30	81	27.2	24.3	08	3.3
950	30	534	23.7	21.8	08	4.9
900	30	1,007	20.9	18.4	09	5.3
850	30	1,501	18.1	14.8	09	5.0
800	30	2,020	15.8	11.3	09	5.5
750	30	2,567	13.3	7.3	09	5.7
700	30	3,145	10.2	3.1	09	5.5
650	30	3,759	6.8	-1.4	09	5.8
600	30	4,413	3.2	-5.4	09	6.0
550	30	5,114	-.7	-11.2	09	5.4
500	30	5,869	-5.0	-14.9	09	5.9
450	29	6,692	-9.9	-19.7	09	6.0
400	28	7,592	-15.3	-28.4	09	5.7
350	27	8,589	-22.0	-34.8	09	5.2
300	27	9,711	-30.3	-43.3	09	4.8
250	27	10,970	-40.8	-49.3	10	5.7
200	27	12,448	-53.0		10	4.4
175	27	13,296	-59.8		09	3.5
150	27	14,242	-67.5		08	3.5
125	27	15,321	-74.9		08	3.9
100	27	16,593	-81.2		09	7.4
80	26	17,847	-79.5		09	6.8
70	26	18,614	-74.3		08	4.4
60	26	19,520	-70.7		08	4.3
50	25	20,615	-66.3		09	6.8
40	24	21,988	-60.6		09	14.9
30	23	23,800	-55.5		09	22.9
25	22	24,969	-52.8		09	25.0
20	20	26,421	-48.1		09	27.0
15	17	28,337	-43.9		09	22.7
10	14	31,090	-39.5			

YUCCA FLAT, [illegible]
[illegible] MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	29	1,198	[illegible]	[illegible]	33	[illegible]
1000						
950						
900						
850	29	1,532	[illegible]	-5.4	36	3.4
800	29	2,036	[illegible]	[illegible]	32	2.8
750	29	2,567	[illegible]	-13.[illegible]	29	[illegible]
700	29	3,128	[illegible]	-17.[illegible]	28	2.5
650	29	3,723	[illegible]	-17.6	25	[illegible]
600	29	4,357	[illegible]	-21.3	24	4.9
550	29	5,035	[illegible]	-25.[illegible]	23	[illegible]
500	29	5,763	[illegible]	-29.[illegible]	23	7.8
450	29	6,552	[illegible]	-34.[illegible]	24	[illegible]
400	28	7,412	[illegible]	[illegible]	24	[illegible]
350	27	8,361	[illegible]	[illegible]	24	[illegible]
300	27	9,415	[illegible]	[illegible]	24	12.8
250	27	10,610	[illegible]	[illegible]	23	14.6
200	27	12,038	[illegible]	[illegible]	22	[illegible]
175	27	12,863	[illegible]	[illegible]	22	14.7
150	27	13,816	[illegible]	[illegible]	23	14.0
125	27	14,937	[illegible]	[illegible]	23	12.3
100	27	16,267	[illegible]	[illegible]	23	9.3
80	26	17,461	[illegible]	[illegible]	25	[illegible]
70	26	18,452	[illegible]	[illegible]	25	[illegible]
60	26	19,393	[illegible]	[illegible]	25	4.1
50	25	20,514	[illegible]	[illegible]	26	3.3
40	24	21,897	[illegible]	[illegible]	24	2.9
30	23	23,701	[illegible]	[illegible]	24	3.3
25	22	24,851	[illegible]	[illegible]	23	3.0
20	21	26,273	[illegible]	[illegible]	24	2.4
15	19	28,130	[illegible]	[illegible]	28	[illegible]
10	14	30,775	[illegible]	[illegible]	[illegible]	[illegible]
7	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]
[illegible] MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature (C)	Dew Point (C)	Resultant Wind Direction tens of deg	Resultant Wind Speed m/s
SFC	27	16	[illegible]	[illegible]	[illegible]	[illegible]
1000	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
900	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
850	27	[illegible]	[illegible]	-9.8	[illegible]	[illegible]
800	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
750	27	[illegible]	[illegible]	-14.5	[illegible]	[illegible]
700	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
650	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
600	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
350	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
200	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
175	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
150	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
125	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
80	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun.

ALBUQUERQUE, NM

Date	Sun's zenith distance: A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass: 4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
1----	1.06	1.10	1.23	1.37	1.45	1.36	1.22	1.08	.97
2----	.99	1.10	1.24	1.36	1.44	1.28	1.13	1.04	.94
3----	----	1.02	1.16	1.28	1.40	1.32	----	1.03	.92
4----	.93	1.03	1.16	1.29	----	----	----	----	----
5----	1.00	----	1.21	1.35	1.44	1.36	1.19	1.07	----
6----	1.00	1.03	1.13	1.34	----	1.35	1.20	1.08	.96
7----	.96	1.07	1.19	1.34	1.41	1.33	1.17	1.04	.93
8----	.92	1.03	1.17	1.31	1.42	1.35	1.19	1.07	.98
9----	1.02	1.12	1.24	1.34	1.41	1.36	1.23	1.08	1.00
10---	----	----	----	----	----	1.35	1.19	1.02	.94
11---	.97	1.06	1.17	1.34	(1.34)	1.30	1.14	(1.00)	----
14---	----	----	----	----	----	1.07	----	----	----
15---	----	----	----	----	----	1.33	1.12	.96	.79
16---	1.05	1.13	1.20	1.34	1.36	----	----	.84	.70
17---	1.03	1.14	1.26	1.40	1.45	1.38	1.23	1.10	1.01
18---	1.02	1.11	1.22	1.35	----	----	----	----	----
19---	1.01	(1.03)	1.20	1.35	1.35	1.29	1.07	.91	.79
20---	1.02	1.12	1.24	1.37	1.40	1.35	1.17	1.01	.91
21---	.82	.94	1.08	1.28	1.33	1.27	1.11	.98	.86
22---	.86	.98	----	----	(1.30)	1.25	1.10	.96	.82
23---	.93	1.04	1.19	1.34	1.36	1.32	1.14	.97	.88
24---	1.01	1.11	1.24	1.39	1.42	1.38	1.20	1.09	.99
25---	1.01	1.10	1.23	1.39	1.42	1.37	1.19	1.07	.98
26---	1.00	1.08	1.15	1.28	----	----	(1.08)	.97	.85
28---	1.01	1.11	1.23	1.40	1.46	1.38	1.24	1.12	1.03
29---	1.03	1.17	1.26	1.39	1.42	1.39	1.24	1.18	1.08
30---	1.05	1.16	1.25	1.38	1.40	1.37	1.21	1.09	.99
Averages	.98	1.08	1.20	1.35	1.41	1.33	1.18	1.08	.92

MADISON, WI

	Air mass: 1.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
2----	----	----	----	----	S 1.29	S 1.26	----	----	----
3----	----	M .68	M .85	----	----	----	----	----	----
4----	S .79	S .88	S 1.03	----	----	----	----	----	----
7----	S .82	S .93	S 1.08	----	----	----	M 1.01	M .88	M .79
9----	----	----	----	----	S 1.26	----	----	----	----
11---	S .81	S .93	S 1.05	----	S 1.24	----	S 1.08	S .98	S .84
13---	H .77	H .88	H 1.01	----	H 1.26	----	H 1.07	H .95	H .81
14---	M .79	----	S 1.03	----	----	----	----	----	----
15---	H .72	H .83	H .99	----	----	----	----	----	----
16---	H .65	H .74	H .81	----	H .95	----	H .94	H .83	H .73
17---	----	----	----	----	M 1.15	----	S 1.12	S .97	----
19---	S .72	S .91	S 1.04	----	S 1.20	----	S 1.04	S .92	S .82
20---	S .85	S .97	S 1.08	----	S 1.19	----	----	----	----
28---	S .93	----	S 1.18	----	----	----	----	----	----
29---	S .85	S .95	S 1.04	----	----	----	----	----	----
30---	S .90	S 1.03	S 1.18	----	S 1.29	----	S 1.20	S 1.10	S .97
Averages	.80	.85	1.03	----	1.09	1.26	1.07	.95	.84

OMAHA, NE

	Air mass: 4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
2----	----	----	----	----	1.38	1.33	1.11	----	----

Equipment removed from service, 11/2/76.

BLUE HILL OBSERVATORY, MA

Date	Sun's zenith distance: A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass: 1.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.8
2----	.76	.83	.92	1.04	1.06	1.06	.92	.79	
12---	.73	.80	----	----	1.01	1.01	.93	.80	
14---	.76	.82	.91	----	1.03	----	.92	.81	
16---	H .64	H .71	H .82	----	H .98	----	H .88	H .74	H
17---	H .62	H .72	H .82	----	H .99	----	----	----	
21---	.80	.89	.98	----	1.06	----	.95	.86	
22---	.75	.85	.94	----	1.02	----	----	----	
25---	H .56	H .66	H .82	----	H .96	----	H .88	H .75	H
Averages	.70	.79	.89	1.04	1.01	1.04	.91	.79	

MAUNA LOA OBSERVATORY, HI

	Air mass: 3.36	2.63	2.01	1.34	*	1.31	2.01	2.63	3
1---	----	1.26	1.39	1.51	1.60	1.58	1.48	1.26	1
2----	1.20	1.28	1.39	1.49	1.58	1.49	1.35	1.25	1
3----	1.24	1.38	1.42	1.53	1.57	1.46	1.34	1.25	1
4----	1.24	1.32	----	----	----	----	----	----	
5----	1.21	1.30	1.39	1.50	1.58	1.52	1.35	1.27	1
9----	1.22	1.31	1.40	1.50	----	----	----	----	
10---	1.21	1.31	1.41	1.49	----	----	----	----	
11---	----	----	1.38	1.48	----	----	----	----	
13---	1.20	1.28	1.38	1.49	----	----	----	----	
15---	1.19	1.28	1.38	1.49	1.56	----	1.31	1.22	1
16---	----	1.33	1.43	1.53	1.58	1.16	1.35	1.31	1
17---	1.28	1.37	1.46	1.56	1.58	----	----	----	
18---	1.21	1.31	1.40	1.50	1.56	1.45	1.33	1.23	1
19---	1.25	1.33	1.42	1.53	1.61	1.47	1.37	1.27	1
24---	1.25	1.34	1.42	1.53	1.61	1.48	1.35	1.24	1
25---	1.22	1.30	1.40	1.50	----	----	----	----	
26---	1.20	1.29	1.38	1.48	1.55	1.42	----	----	
27---	1.23	1.31	1.40	1.50	1.56	----	----	----	
28---	1.21	1.29	1.38	1.49	1.56	1.40	1.29	1.20	1
29---	1.20	----	----	1.46	----	----	----	----	
30---	1.18	1.26	1.35	1.46	1.50	1.42	----	----	
Averages	1.23	1.31	1.40	1.50	1.57	1.47	1.22	1.25	1

TUCSON, AZ

	Air mass: 4.64	3.71	2.78	1.86	*	1.86	2.78	3.71	4
1----	.93	1.01	1.13	1.29	1.40	1.30	1.13	1.00	
2----	1.08	1.12	1.24	1.37	1.46	1.34	1.22	1.07	
3----	.97	1.07	1.19	1.33	1.43	1.31	1.18	1.05	
4----	.94	1.04	1.17	1.31	1.40	1.30	1.05	.94	
5----	.98	1.08	1.21	1.34	1.43	1.31	1.17	1.03	
6----	.93	1.02	1.14	1.30	1.39	1.26	1.11	.98	
7----	.88	.98	1.11	1.29	1.36	1.28	1.11	.98	
8----	.95	1.06	1.18	1.34	1.43	1.32	1.15	1.02	
9----	.98	1.08	1.20	1.33	1.41	1.29	1.10	1.02	
10---	.86	.96	1.07	1.25	1.36	1.30	1.08	.96	
11---	.87	.94	----	1.28	1.35	1.29	1.09	.95	
16---	----	----	----	----	1.38	1.30	1.14	.99	
17---	1.00	1.06	1.22	1.36	1.36	1.30	1.08	1.00	
18---	.94	1.04	1.19	1.32	1.38	1.30	1.15	1.03	
19---	.94	1.03	1.16	1.31	1.35	1.29	1.11	1.01	
20---	.83	.94	1.08	1.27	1.34	1.24	1.08	.94	
21---	.74	.87	1.02	1.23	1.31	1.23	1.04	.88	
22---	.83	.94	1.06	1.26	1.34	1.27	1.05	.94	
23---	.78	.90	1.03	1.22	1.30	1.27	1.06	.92	
24---	----	----	----	1.23	1.31	1.22	1.03	.89	
25---	.74	.85	.99	1.21	1.28	1.17	1.14	1.01	
26---	.92	1.02	1.16	1.33	1.40	1.31	1.16	1.01	
28---	.97	1.09	1.24	1.38	1.48	1.42	1.27	1.14	1
29---	1.02	1.15	1.27	1.41	1.47	1.41	1.24	1.14	1
30---	1.06	1.18	1.29	1.39	1.47	1.38	1.24	1.11	1
Averages	.92	1.02	1.15	1.31	1.38	1.30	1.13	1.00	

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
[illegible]	[illegible]																														

NET RADIATION

Net radiation in langleys per day (8 a.m. to 8 a.m.) at Palmer, Alaska. NOVEMBER 1976

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys	-70	-83	-28	-62	-55	-46	-24	- 2	-51	- 9	-71	-24	-33	-64	-43	-58	-95	-94	-90	-62	-34	-29	-41	-93	-32	-33	- 6	-25	-33	-23		-47

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals and monthly average (~3900 Å) at Ames, Iowa.

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys																																

NO DATA RECEIVED

TOTAL OZONE DATA

These provisional ozone data are obtained from measurements made with a Dobson ozone spectrophotometer, and are applicable approximately to local apparent noon. The data are presented in the code as defined in the August 1962 WMO circular entitled "PUBLICATION OF DATA FOR METEOROLOGICAL RESEARCH, WORLD OZONE DATA."

Units Milli-atmo-cms.

Station	Day of month																															Mean O_3
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

NO DATA RECEIVED

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION - [illegible] Dates in the table apply to the period 21 hours prior to the observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations)

\+ And also on an earlier date or dates.
D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile data can be evaluated.

B Number of days maximum 21.1°C. or above for Alaskan Stations.
Y Peak Gust.
\+ And also on an earlier date or dates.
U Indicates Urban site.
R Indicates Rural site.
Ø Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publication.

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters
$F. = \frac{9}{5} \times C. + 32$
1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

° Includes crop damage.
C Crop damage.
* No occurrence of storms or unusual weather phenomena reported.
@ Includes heavy sleet storm.
\# Freezing drizzle and freezing rain, commonly known as glaze.
Ø For breakdown of "All Others," and for detailed listing of other storms, see the Environmental Data Service, NOAA, monthly publication STORM DATA.
‡ No Storm Data Report received for this State.
<> Report Incomplete.
† Storm damages are placed in categories varying from 1 to 9 as follows:
1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5 Million
7 $5 Million to $50 Million
8 $50 Million to $500 Million
9 $500 Million to $5 Billion.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1/ Flooding continued at the end of the month.
NA Not available.

FLOOD STAGE DATA:

\# Highest Stage Observed
1/ Continued at end of month
Highest Stage of Record
E Estimated
P Provisional (Flood Stage)
U Unknown

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
\- Observations for these stations are scheduled at 0000 G.C.T.
† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

REFERENCE NOTES

SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

()	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
*	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeterminable
BD	Blowing Dust	F	Fog	I	Intense Haze-indeterminable		
BN	Blowing Sand	GF	Ground Fog	K	Smoke	N	Sand
D	Dust	H	Haze	KI	Intense Smoke	S	Slight Haze-indeterminable
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		

SOLAR RADIATION TOTALS: Langley is the unit used to denote one gram calorie per square centimeter.

* Values with an asterisk are interpolated.
Data are only for those stations equipped with Eppley Model II sensors.

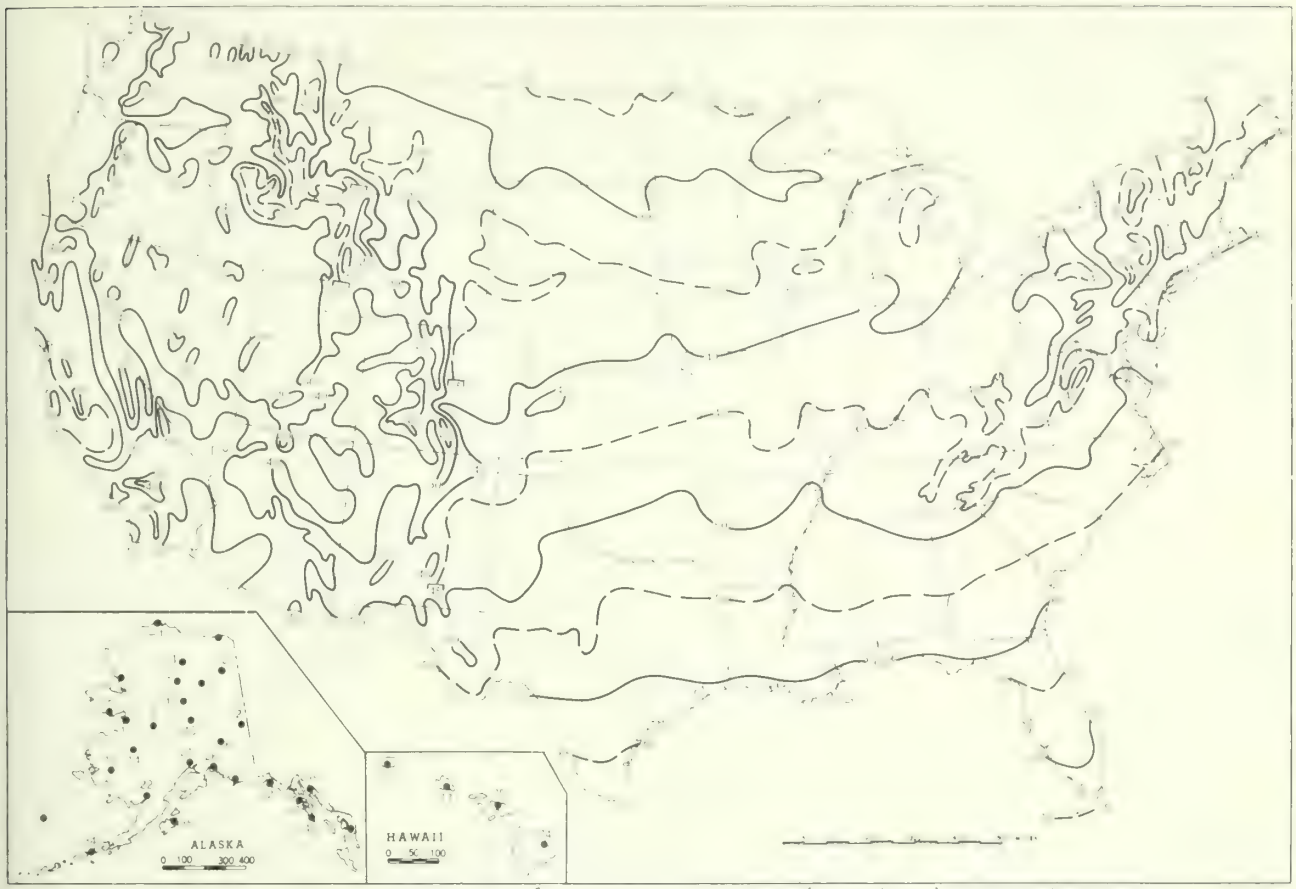
NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded $\Omega\ \Omega\ \Omega$) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code $_{A}S$ designates the type of measurement made.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), November.



B. Temperature Departure from 30 - Year Mean (°F 1941-70), November 1976

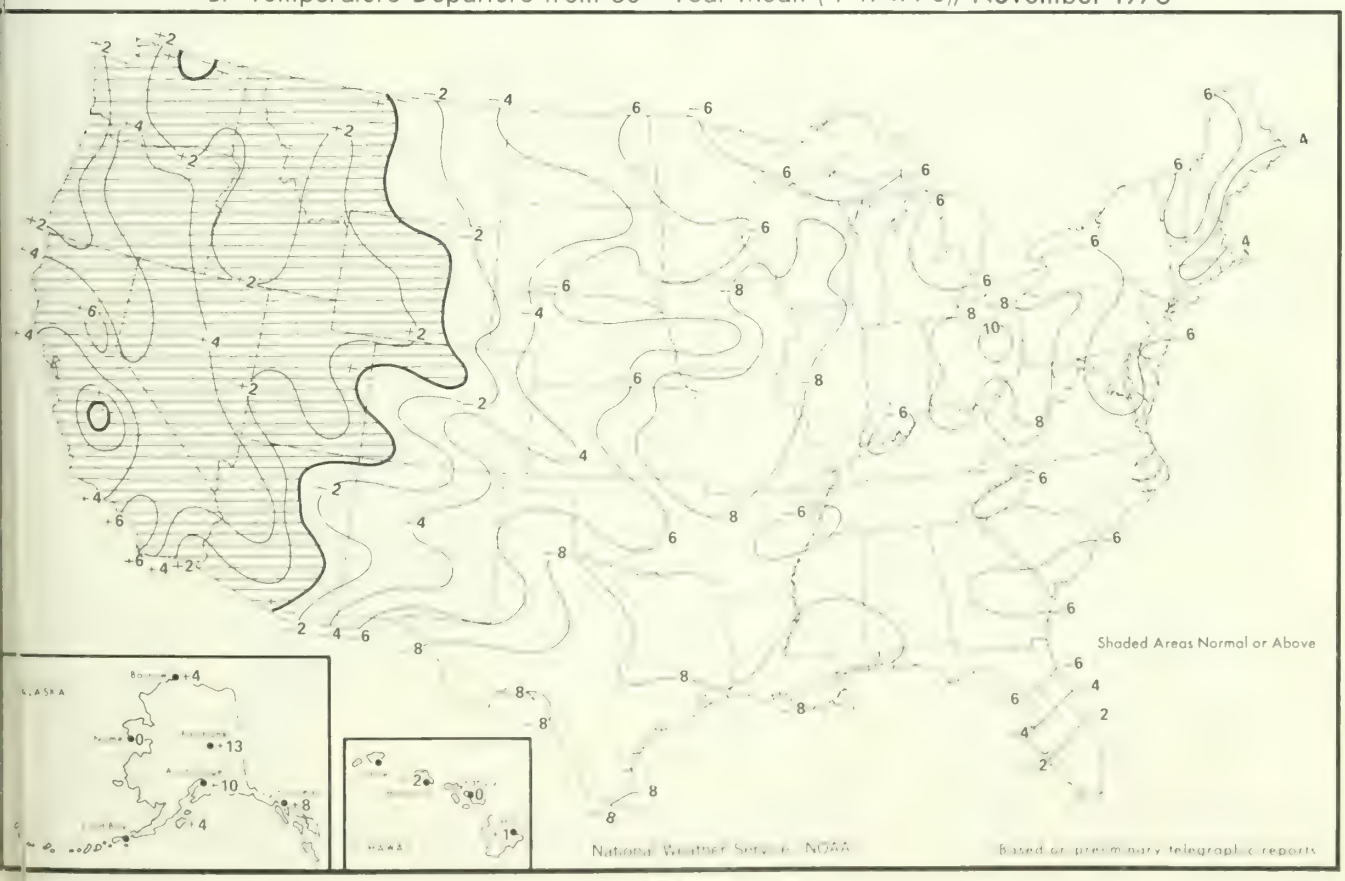
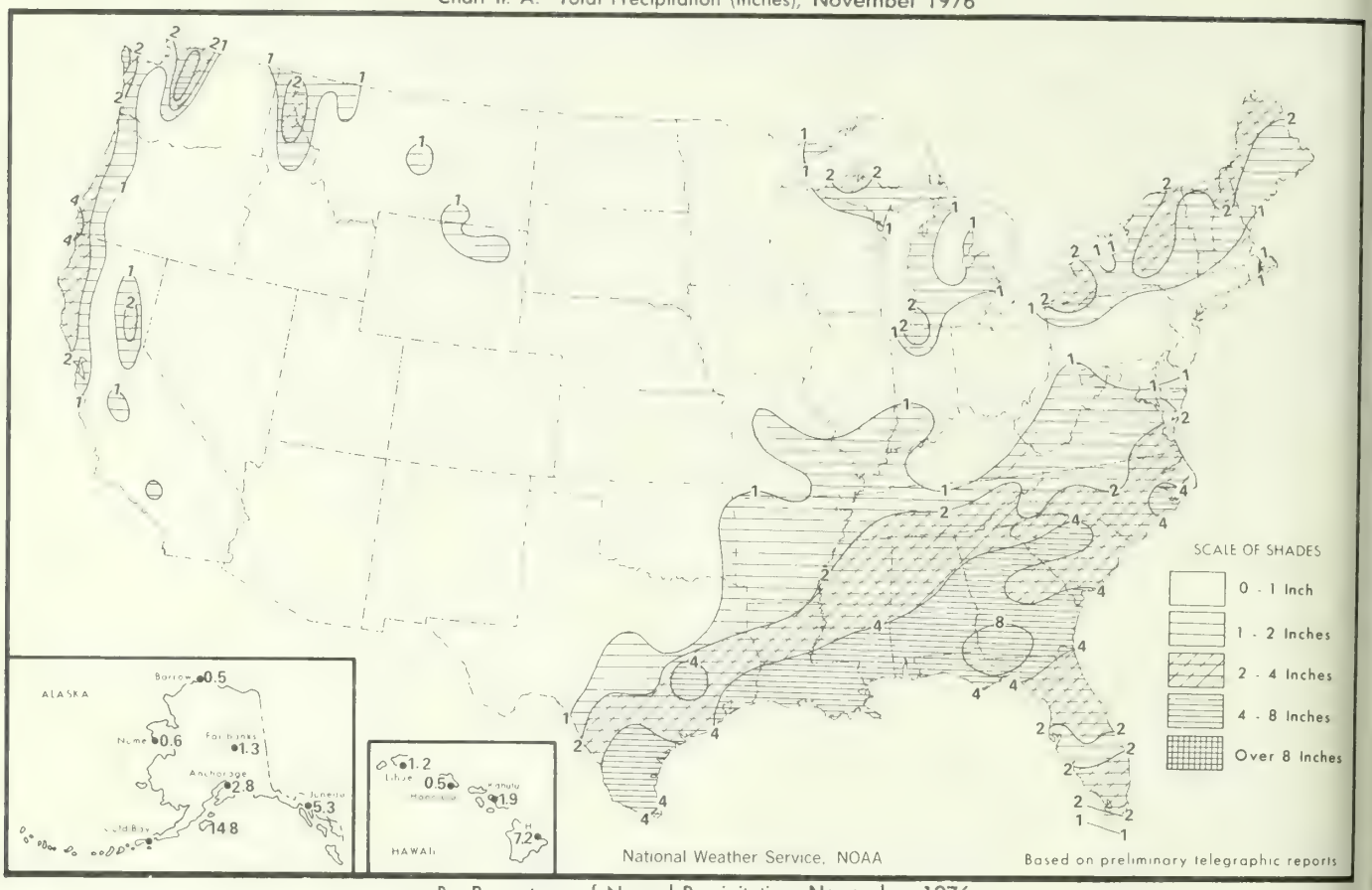
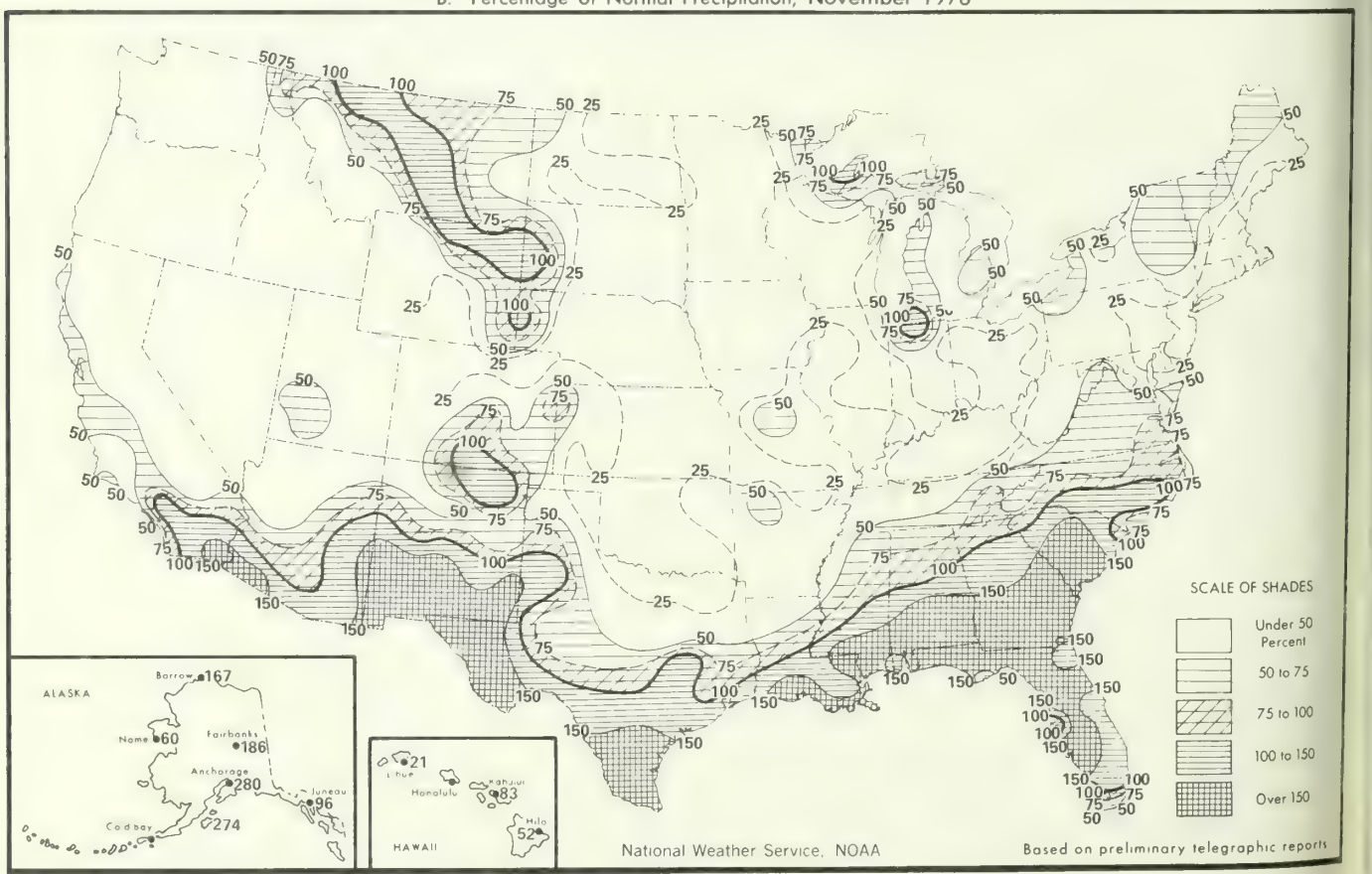
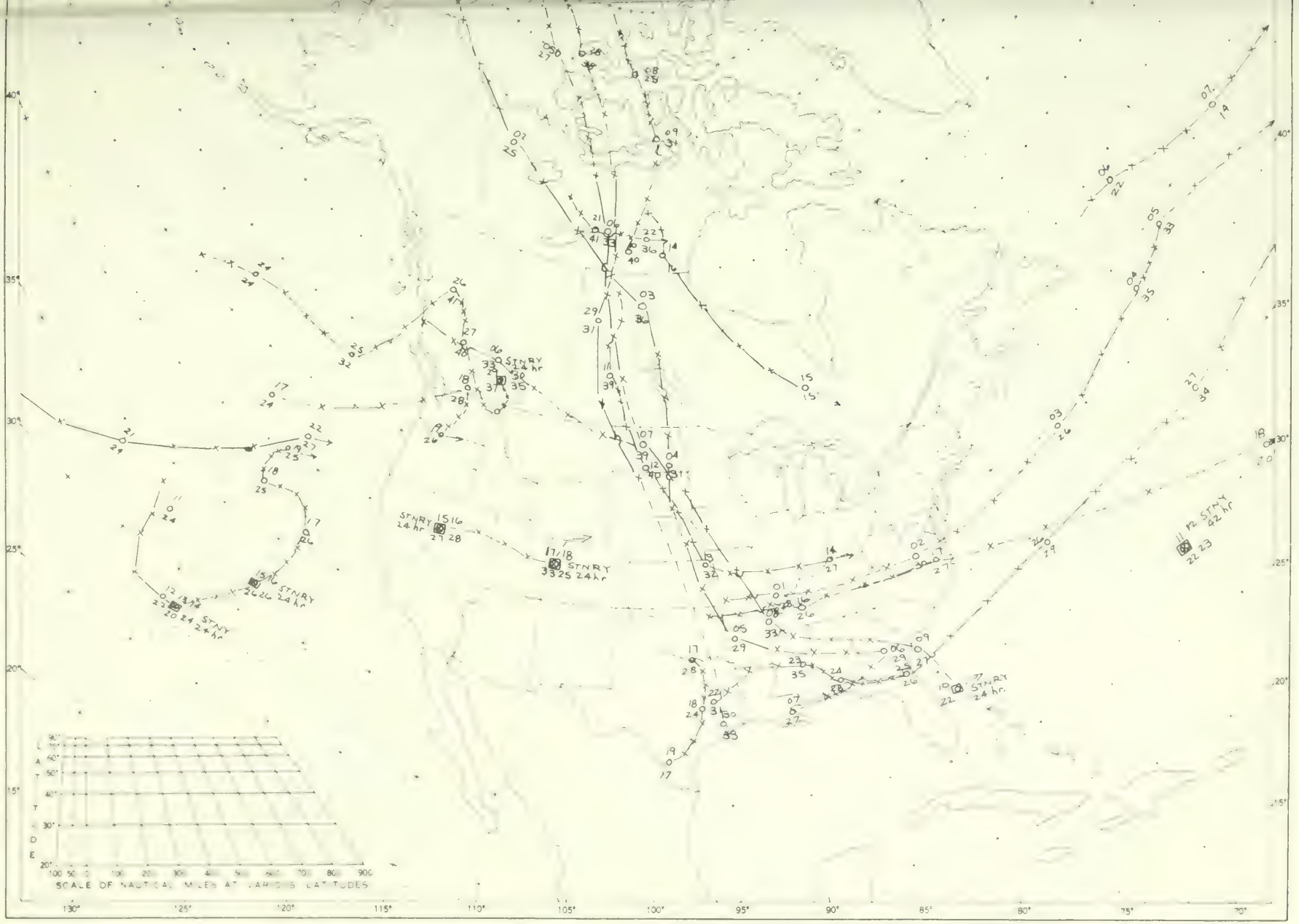


Chart II. A. Total Precipitation (Inches), November 1976



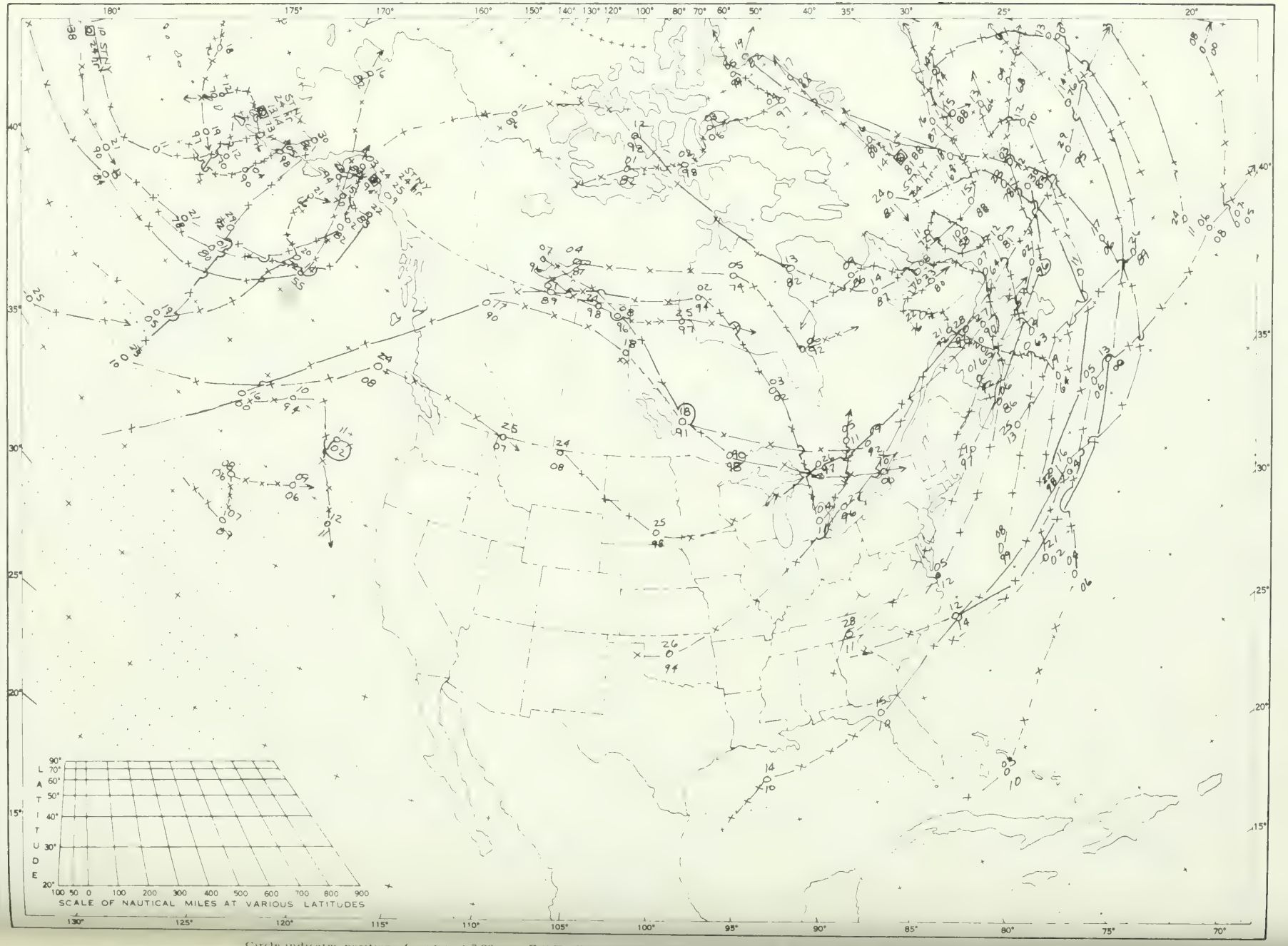
B. Percentage of Normal Precipitation, November 1976





Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. X's indicate intervening 6 hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IV. Tracks of Centers of Cyclones at Sea Level, November 1976



Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar.

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DECEMBER 1976 VOLUME 27 NUMBER 12

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

"I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND IS COMPILED FROM INFORMATION RECEIVED AT THE NATIONAL CLIMATIC CENTER, ASHEVILLE, NORTH CAROLINA 28801."

Daniel B. Mitchell

DIRECTOR
NATIONAL CLIMATIC CENTER

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

DECEMBER 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Dr. Richard E. Felch, Climatologist

IIGHLIGHTS: December was cold. This was the third nonth in a row in which the temperature averaged colder than normal. Many cities claimed the coldest December of record. The coldest areas were east of the Rocky Mountains. The first week in the month was the coldest with an almost continuous flow of Arctic air from central Canada. Some warming took place during midmonth but it was short-lived and the succession of Arctic outbreaks began anew. Significant precipitation was confined to the area east of a line from central Texas to Lake Erie, parts of the Lake shores and the West Coast. Most of the nation recorded less than the normal amount of rainfall. Normal amounts of precipitation fell in the southern parts of the Gulf Coast States and in the Southeast. A small area in the northern Plains near the Canadian border recorded normal to slightly above in the form of snow.

The first week in December was colder than normal in nearly all of the Nation, the only exception being some areas in the Far West. The coldest area was in the upper Great Lakes region.

A succession of cold outbreaks into the northern Plains moved cold air southward and eastward and even enveloped the Rocky Mountains and most of the Plateau in its icy fingers. Light showers of snow or rain occurred along the advancing edge of the cold air. Significant amounts of precipitation fell in East Texas in the form of rainshowers. Peninsula, Florida recorded moderate showers. Elsewhere, the shores of the Great Lakes experienced almost daily light snow. Southwestern New York accumulated nearly 15 feet of new snow.

Cold air continued to push into the United States during the second week of December. However, the flow of warm air from the Gulf of Mexico increased and moderate to heavy precipitation fell in the lower Mississippi Valley and the Gulf Coast area. Freezing rain was reported in northeast Texas and in Arkansas. Snow fell north of these areas and in the Ohio Valley. As the warmer air moved northward along the East Coast the precipitation moved with it. Rain fell east of the Appalachians and snow mixed with rain wet the southern mountains and the Ohio Valley.

A large high pressure system formed over the Plateau in the West at midmonth and the down slope air movement caused warming in the central and northern Plains while warm air from the Gulf flowed into the southern Plains. The Arctic air from Canada invaded only northeastern United States as a series of systems from the Pacific moved across the northern States. There was little or no precipitation over most of the Country. The exceptions were: The Gulf States, where some heavy rain fell along the Coast; the Southeast; northern New England, and the coast of Pacific Northwest.

Early in the last ten days of the month the winter patterns were reestablished and a series of Arctic air masses again invaded the United States bringing cold weather to all areas east of the Rockies. There was still little or no precipitation over most of the Nation with some exceptions. Precipitation fell from east Texas through the southern States and the Southeast. Both sides of the Appalachians received rain or snow, and snow covered the Northeast from western Maryland and Virginia northward. The rain-snow in the mountains in the Pacific Northwest spread inland to northern Idaho and western Montana.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	Whatley	74	18	4 Stations	7	31	Dauphin Island 2	7.06	Belle Mina 2 N	3.25
Alaska	3 Stations	62	30	Allakaket	-60	10	Mac Leod Harbor	D40.02	University Exp. Station	T
Arizona	5 Stations	78	18	Fort Valley	-10	22	Sunflower 3 NNW	2.13	10 Stations	.00
Arkansas	2 Stations	74	27	Deer	- 7	31	West Memphis	5.92	Saint Francis	.94
California	San Gabriel Fire Dept.	87	15	Bridgeport	-11	22	Ben Lomond 4	3.65	11 Stations	.00
Colorado	2 Stations	71	26	2 Stations	-22	22	Berthoud Pass	1.80	12 Stations	.00
Connecticut	Bridgeport WSO AP	58	7	Hautboy Hill Farm	- 9	4	Storrs	3.87	Putnam Lake	2.17
Delaware	Georgetown 5 SW	62	8	Bridgeville 1 NW	6	30	Lewes 1 SW	3.59	Wilmgton Porter Reservoir	1.29
Florida	Clewiston U. S. Eng.	89	13	Smith Creek	18	22	Federal Point	9.29	Miami Beach	1.09
Georgia	Folkston 9 SW	78	12	Blairsville Exp. Station	3	22	Toccoa	7.66	Savannah Beach	2.25
Hawaii	Lahaina 361	88	7	Mauna Loa Slope Obs.	28	27	Pahoa	13.40	17 Stations	.00
Idaho	Reynolds	65	9	Stanley	-19	19	Powell	2.84	7 Stations	.00
Illinois	Waterloo	69	19	Peru 2 W	-18	31	Du Quoin 4 SE	1.23	Rantoul	.02
Indiana	Evansville WSO AP	67	19	Lowell	-21	31	South Bend WSO AP	2.21	West Lafayette 6 NW	.18
Iowa	Logan	72	18	3 Stations	-24	31	Sanborn	.87	2 Stations	.01
Kansas	Sedan	76	18	Troy 3 SW	-15	31	Columbus 6 NNW	.35	92 Stations	.00
Kentucky	2 Stations	70	19	2 Stations	- 4	31	Hyden	3.45	Henderson 7 SSW	.46
Louisiana	4 Stations	75	20	4 Stations	16	31	Quarantine	14.05	Haynesville 2 WSW	2.30
Maine	3 Stations	53	8	Squa Pan Dam	-28	29	Eastport	7.68	Upper Dam	1.43
Maryland	3 Stations	62	7	Oakland 1 SE	-11	3	Salisbury	3.75	Hagerstown	1.28
Massachusetts	Boston WSO AP	59	7	Chester 2	-14	4	Nantucket FAA AP	5.12	Plainfield	1.73
Michigan	Three Rivers	52	19	Ironwood	-35	30	Whitefish Point	4.93	2 Stations	.35
Minnesota	5 Stations	52	19	Virginia	-45	31	Island Lake Reservoir	1.53	Georgetown	.05
Mississippi	3 Stations	73	29	2 Stations	5	31	Biloxi City	8.25	Sarah	1.44
Missouri	2 Stations	73	18	2 Stations	-19	31	Wasola	1.81	2 Stations	T
Montana	2 Stations	67	17	Redstone	-27	10	Bozeman 12 NE	D 2.52	4 Stations	.00
Nebraska	Ashland 3 NE	72	19	Wakefield	-19	8	Tekamah	.89	17 Stations	.00
Nevada	Sunrise Manr Las Vegas	72	16	Rand Ranch Palisade	-13	21	Mount Rose Bowl	.45	36 Stations	.00
New Hampshire	Greenland	54	7	Mount Washington	-33	13	Mount Washington	13.57	Berlin	1.76
New Jersey	Belvidere	62	8	Newton St. Pauls Abbey	- 4	3	Long Valley	3.46	Burlington	1.47
New Mexico	Amistad 1 SSW	76	27	Eagle Nest	-22	23	Zuni 4 NE	.67	53 Stations	.00
New York	N. Y. La Guardia	57	7	Newcomb 4 WNW	-30	14	Hooker 4 N	6.23	Mount Morris 2 W	.53
North Carolina	5 Stations	70	19	Grandfather Mountain	- 4	22	Coweeta Exp. Station	8.16	Marshall	13.06
North Dakota	Hettinger	58	17	2 Stations	-32	30	Belcourt Indian Reservoir	.85	Sherwood 3 N	.04
Ohio	2 Stations	63	20	Plymounth 2 WSW	-20	31	Dorset	3.35	Xenia 5 SSE	.34
Oklahoma	Hollis	78	27	2 Stations	- 1	31	Bear Mountain Tower	4.38	18 Stations	.00
Oregon	Brookings	71	10	Fremont	- 9	28	Nehalem 9 NE	7.64	2 Stations	.00
Pennsylvania	Blairsville 7 E	62	20	Clermont 4 NW	-24	30	Bakerstown 3 WNW	D 4.25	2 Stations	.95
Puerto Rico	San Sebastian 2 WNW	92	15	Adjuntas Substation	47	27	Pico Del Este	12.67	2 Stations	.00
Rhode Island	Newport	56	7	North Foster 1 E	- 3	14	North Foster 1 E	3.94	Block Island WSO AP	3.03
South Carolina	2 Stations	74	12	2 Stations	8	22	Brookgreen Gardens	8.16	Walterboro 2 SW	4.14
South Dakota	Cedar Butte	71	17	2 Stations	-29	30	Lead 1 E	1.79	2 Stations	.03
Tennessee	Mount Pleasant 2 SW	73	19	Waverly 4 W	- 6	31	Cleveland 6 NNE	5.79	Paris 5 E	.67
Texas	Brownsville WSO AP	84	28	Lipscomb	- 3	31	Freeport 2 NW	10.11	48 Stations	.00
Utah	Orderville	67	3	Scofield Dam	-15	28	Park City Summit House	.25	50 Stations	.00
Vermont	Vernon	48	16	Mount Mansfield	-25	3	Mount Mansfield	D 4.59	South Hero	1.05
Virginia	Norfolk WSO AP	67	7	Monterey	- 3	22	Stuart 1 SSE	4.45	Washington	.85
Virgin Islands	Frenchmans Bay	89	1	Charlotte Amalie 2	61	9	East End	6.29	Charlotte Amalie 2	1.54
Washington	Quilcene 2 SW	63	15	Chesaw 4 NNW	- 3	28	Spruce	11.79	Quincy 1 S	T
West Virginia	Union	66	20	Reedsville Exp. Farm	-13	3	Pickens 1	4.29	Union	.64
Wisconsin	4 Stations	50	19	Gordon	-42	30	Flambeau Reservoir	1.21	Baraboo	.11
Wyoming	2 Stations	69	17	Darwin Ranch	-24	28	Snake River	1.67	6 Stations	.00

CLIMATOLOGICAL DATA

METRIC UNITS

DECEMBER 1976

State and Station	Elevation above ground	Pressure: Station	Pressure: Sea level	Temperature: Average max daily	Temperature: Average min daily	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Highest date	Temperature: Lowest	Temperature: Lowest date	Temperature: No of days Max 32.2°C or below	Temperature: No of days Min 0°C or below	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days 25 mm or more	Precipitation: No of days With thunderstorms	Precipitation: Snow ice pellets Total	Precipitation: Snow ice pellets Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers) Speed	Wind: Fastest mile (1.6 kilometers) Direction	Wind: Fastest mile (1.6 kilometers) Date	No of days sunrise to sunset: Clear 0.3	No of days sunrise to sunset: Partly cloudy 4.7	No of days sunrise to sunset: Cloudy 8.10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							
ALABAMA																																
BIRMINGHAM	189	997.6	1024.6	11.8	-1.4	5.1	-2.2	28.[illegible]	18	-10.0	31	0	22	0.0	7[illegible]	11[illegible]	-22	34	10	0	T	T	0.4	32	10.7	NW	20	14	4	15	5.4	55
HUNTSVILLE	190	994.6	1021.5	10.9	-2.0	4.4	-1.3	20.0	18	-12.8	31	0	22	-2.2	67	88	-49	29	11	0	T	T	0.4	28	17.4	NW	20	15	5	11	4.8	
MOBILE	64	1012.5	1024.4	15.1	2.7	8.9	-2.7	29.7	28+	-3.9	24+	0	11	7.3	7[illegible]	107	-43	29	13	0	T	0	2.9	36	11.2	33	31	11	4	16	6.7	
MONTGOMERY	59	1013.2	1020.8	12.4	1.4	6.4	-2.8	28.9	18	-8.9	22	0	17	1.1	7[illegible]	125	0	41	10	0	0	0	2.8	36	13.4	NW	20	13	3	15	5.6	48
ALASKA																																
ANCHORAGE	35	995.9	1020.9	-2.4	-7.6	-4.9	5.6	3.9	13+	-22.6	8	0	31	-7.8	81	26	-1	6	14	0	351	203	1.3	36	10.3	24	12	1	4	26	9.2	10
ANNETTE	34	1008.1	1012.2	6.6	1.6	4.1	1.9	11.1	29	-5.0	18+	0	7	1.7	85	393	85	21	21	0	46	[illegible]	3.0	13	15.6	19	13	2	2	27	9.0	
BARROW	9	1023.0	1028.4	-24.8	-28.9	-26.9	-2.3	-20.[illegible]	31	-33.9	9+	0	31	-30.4	72	1	-4	1	1	0	10	305	3.0	6	9.[illegible]	4	14					
BARTER ISLAND	12	1016.3	1022.2	-26.8	-33.4	-30.6	-5.5	-17.8	23	-42.8	18+	0	31	-32.8	71	3	-5	1	1	0	20	178	6.8	16	25.9	27	2					
BETHEL	38	992.9	998.6	-10.6	-17.5	-14.1	1.3	0.2	23+	-30.6	2	0	31	-18.3	72	7	-8	6	10	0	145	229	5.1	8	17.0	2	8	8	1	22	7.3	
BETTLES	194	987.1	1013.1	-18.8	-27.[illegible]	-22.9	1.6	-12.2	1	-41.7	3	0	31	-26.1	76	8	-15	5	5	0	132	686	3.9	35								
BIG DELTA	28A			-12.7	-19.[illegible]	-15.5	4.6	5.A	1	-37.2	8	0	31			4	-7	1	4		64	51										
COLD BAY	23	994.[illegible]	999.7	1.8	-5.1	-2.1	-0.4	6.7	8+	-17.2	16	0	25	-3.9	86	73	11	16	22	0	615	457	1.2	23	19.7	15	22	3	8	20	7.7	
FAIRBANKS	133	989.5	1007.6	-5.6	-24.0	-19.9	3.6	7.8	1	-51.1	3	0	31	-25.6	64	2	-14	2	2	0	66	203	1.2	1	17.3	23	1	12	9	10	5.1	
GULKANA	479			-11.4	-19.1	-15.3	5.3	3.5	.	-27.8	18+	0	31			105	86	85	11		744	381										
HOMER	19			2.3	-3.1	-0.3		7.2	25+	-12.8	8	0	27			98	40	21	24	0	358	127			13.0	8	11+	0	7	24	8.5	
JUNEAU	4	1008.[illegible]	1009.4	0.6	-6.3	-2.8	3.9	6.7	1	-9.4	18	0	13	0.0	90	141	26	25	23	0	668	254	2.5	10	12.5	12	19	1	1	29	9.[illegible]	10
KING SALMON	15	993.6		-2.5	-11.7	-7.1	4.2	2.8	21+	-27.8	9	0	31	-8.3	89	45	18	11	18	0	279	203	1.6	7	15.6	9	31	3	4	24	8.4	
KODIAK	4	999.2	996.5	3.3	-3.7	0.1	1.2	7.2	5	-12.2	16	0	24	-2.2	87	289	155	83	23	0	255	102	1.0	9	17.0	11	31+	6	5	20	7.5	
KOTZEBUE	3	1009.8	1010.4	-1.6	-24.3	-20.6	-0.2	-4.4	25	-37.2	4	0	31	-23.9	71	11	3	6	8	0	176	330	3.4	5	15.6	9	24	12	7	12	5.2	
MCGRATH	105	991.2	1004.6	-6.6	-29.7	-21.1	1.8	-4.4	1	-36.1	6	0	31	-23.9	79	9	-18	6	8	0	158	483	0.8	36	8.9	19	1	9	3	19	6.4	
NOME	4	1004.1	1005.0	-8.1	-17.9	-12.6	2.7	2.2	24	-30.0	28	0	31	-18.3	82	4	-14	4	7	0	91	152	4.0	4	16.1	3	11	12	2	17	5.7	39
ST. PAUL ISLAND	7	994.2	995.2	-1.9	-7.5	-4.7	-2.3	3.9	5	-15.6	21	0	29	-7.8	76	19	-32	3	16	0	242	229	4.8	6	23.1	9	7+	0	6	25	8.8	
TALKEETNA	108			-3.1	-11.1	-7.1	5.7	2.2	.	-20.6	8+	0	31			33	-10	24	12	0	249	610			8.0	3	23+	3	5	23	8.5	
TANANA WEST	6			-10.8	-16.8	-13.8		-0.8	24	-31.1	2	0	31			4		2	7		46	102			18.3	9	5	16	5	16	6.0	
UNALAKLEET	7			-0.6	-3.7	-2.1	4.8	3.3	29	-12.2	9	0	31			211	74		23		2578				1.3	11	8	0	3	28	9.4	
YAKUTAT	9	1004.7	1005.6	3.5	-1.4	1.1	4.3	7.8	21	-11.1	17	0	19	-0.6	90	4[illegible]	73	57	25	0	639	381	2.0	10	15.6	13	21	2	1	28	9.2	
ARIZONA																																
FLAGSTAFF	2135	787.7	[illegible]	9.7	-10.1	-0.2	1.6	17.2	3	-16.1	29+	0	31	-14.4	40	20	-34	17	3	0	229	203	1.2	6	15.2	NE	1	20	4	7	3.1	84
PHOENIX	339	97[illegible]	[illegible]	20.2	4.9	13.1	1.7	33.9	.6	1.1	25	0	0	-3.3	34	22	-1	20	2	0	0	0	1.3	10	13.0V	E	16	22	2	7	2.9	90
TUCSON	788	92[illegible].2	[illegible]	18.5	3.9	11.2	0.[illegible]	33.4	9+	-2.8	25	0	5	-3.3	39	19	-12	12	2	0	0	0	2.6	18	15.6	SE	16	17	8	6	3.4	82
WINSLOW	1482	85[illegible].7	[illegible]	8.7	-9.7	-0.[illegible]	-[illegible].4	26.7	9	-15.6	29+	0	31	-10.6	55	[illegible]	-6	8	2	0	25	25	1.8	20	17.3	22	30	19	5	7	3.3	
YUMA	59	1009.8	[illegible].1	20.9	6.[illegible]	13.8	0.3	34.4	16	2.2	24	0	0	-5.0	31	16	[illegible]	16	1	0	0	0	2.6	36	14.8	NW	10	20	5	6	2.7	87
ARKANSAS																																
FORT SMITH	134	1003.7	1021.[illegible]	13.6	-[illegible].9	3.2	-2.1	28.0	17	-14.4	31	0	27	-3.9	65	46	-27	9	4	0	0	0	1.9	35	11.6	SW	24	19	4	8	3.7	77
LITTLE ROCK	78	1011.2	1021.[illegible]	13.9	-[illegible].0	5.5	-.2	2[illegible].1	28+	-12.2	31	0	20	-3.9	55	58	-45	4[illegible]	5	0	0	0	1.3	9	10.7	SW	27	16	7	8	3.8	73
CALIFORNIA																																
BAKERSFIELD	145	1001.7	1019.5	18.6	2.7	10.6	1.8	65.0	16	-0.6	27	0	2	1.7	59	3	-[illegible].5	3	2	0	0	0	0.7	8	5.[illegible]	5	30+	19	5	7	3.3	
BISHOP	1252	887.4	[illegible]	14.9	-7.1	3.9	[illegible].1	20.[illegible]	3+	-11.7	23+	0	31			7	-27	[illegible]	[illegible]		7	0			20.6V		9	23	4	4	2.3	
BLUE CANYON	1609	840.5	1018.2	12.4	2.8	7.7	3.7	19.4	1	-2.8	31+	[illegible]	6	-11.1	3[illegible]	8	-303	[illegible]	2		74	51	0.8	11	9.8	6	4					
EUREKA	12			13.1	4.0	8.6	-0.7	17.8	11	[illegible].7	10	0	0			13	-154	7	4		0	0			13.0	[illegible]	4	11	[illegible]	13	5.4	52
FRESNO	100	1007.8	1019.5	16.1	-0.1	8.1	-0.4	38.0	17+	-3.3	24	0	21	1.7	7[illegible]	18	-25	13	2	[illegible]	0	0	0.6	9	6.3	8	31+	19	6	6	3.4	90
LONG BEACH	8	1015.9	1017.3	23.3	4.7	15.0	1.9	28.4	1	3.3	25	0	0	4.4	59	11	-31	9	2	[illegible]	0	0	0.7	30	8.0	8	16	19	7	5	3.0	
LOS ANGELES	30	1013.5	1017.1	22.2	9.0	15.6	2.3	29.4	1	5.0	25	0	0	5.0	59	24	-20	22	2	[illegible]	0	0	0.7	30	11.2V	SW	30	19	6	5	3.1	
MT SHASTA P	1077	894.0	1023.[illegible]	10.3	-4.3	3.0	1.1	18.[illegible]	26+	-7.2	24+	0	30	-6.7	57	19	-140	13	3		165	102	0.8	36								
OAKLAND	7	1016.3	1019.5	15.1	4.4	9.8	-0.2	19.4	10	0.6	28	0	0	4.4	70	43	-47	43	2	[illegible]	0	0	0.9	10	8.9	14	30+	18	6	7	3.6	
RED BLUFF	104	1007.[illegible]	1020.[illegible]	18.[illegible]	1.[illegible]	9.8	1.8	25.[illegible]	15	-2.8	28	0	9	-1.7	51	17	-83	10	2	[illegible]	0	0	2.5	35	13.9	N	4	14	8	9	4.4	85
SACRAMENTO	5	1019.0	1019.[illegible]	15.3	0.8	8.[illegible]	0.4	17.[illegible]	20+	-3.3	29+	0	11	0.0	60	7	-63	16	2	0	0	0	0.4	35	13.0	S	9	22	5	5	3.2	65
SANDBERG R	1377	863.[illegible]	1017.[illegible]	[illegible].6	4.[illegible]	7.9	2.4	17.[illegible]	8	0.0	31	0	1	-11.7	29	15	-35	11	2	[illegible]	93	0	5.0	8	17.0	7	[illegible]					
SAN DIEGO	4	[illegible].9	[illegible].[illegible]	21.6	10.[illegible]	15.9	2.2	26.7	16	7.8	25	0	0	[illegible].6	5[illegible]	27	-17	27	2	0	0	0	0.7	29	9.[illegible]	5	30	19	5	7	3.3	87
SAN FRANCISCO	2	1018.[illegible]	1017.3	14.9	3.7	9.3	-0.5	19.4	5	[illegible].1	28+	0	0	2.8	66	69	-33	68	2	[illegible]	0	0	0.[illegible]	[illegible].7	9.8	6	31	17	6	8	4.[illegible]	
SAN FRANCISCO AP	14			15.9	9.1	12.6	1.4	28.[illegible]	5	6.7	27	0	0			54	-52	54	2													
SANTA MARIA	72			[illegible].9	1.0	[illegible].[illegible]	0.0	26.1	15	-1.7	27+	0	11			28	-24	17	2		0	0							22	3	5	2.6	
STOCKTON	7	1019.[illegible]	1019.9	15.8	-0.3	7.8	0.2	28.9	3	-3.9	29	0	20	0.6	68	14	-52	14	3	0	0	0	0.[illegible]	15	9.[illegible]	34	9	16	9	6	4.[illegible]	
COLORADO																																
ALAMOSA	2297	772.[illegible]		[illegible].2	-21.9	-10.[illegible]	-3.3	[illegible].2	9	-26.7	27	0	31			2	-7	1	2		53	102							17	11	3	3.2	

CLIMATOLOGICAL DATA

METRIC UNITS

DECEMBER 1976

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32°C or above	Temperature: No. of days: Min 0°C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Snow, ice pellets: Total	Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days sunrise to sunset: Clear 0-3	No. of days sunrise to sunset: Partly cloudy 4-7	No. of days sunrise to sunset: Cloudy 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m s		m s							%
COLORADO																																
COLORADO SPRINGS	1873	810.0	1019.8	8.2	-7.3	0.5	1.1	16.7	26	-17.8	31	0	31	-12.8	44	3	-4	2	4	0	66	25	2.0	4	14.3	1	5	15	8	8	4.1	
DENVER	1610	835.4	1016.9	10.5	-6.7	1.9	1.6	18.3	16+	-15.0	31+	0	31	-11.1	46	4	-7	2	4	0	79	25	1.2	21	18.3	NW	27	14	9	8	4.4	87
GRAND JUNCTION	1476	856.4	1025.4	5.9	-10.8	-2.4	-1.1	10.0	9	-16.1	29	0	31	-15.0	43	T	-14	T	1	0	T	T	0.8	8	7.6	N	10	17	6	8	3.8	84
PUEBLO	1428	855.7	1019.5	9.1	-7.9	0.6	0.0	19.4	26	-13.3	31	0	30	-7.8	65	4	-4	3	5	0	51	51	0.7	30	15.2	W	27	15	9	7	3.9	89
CONNECTICUT																																
BRIDGEPORT	2	1014.2	1014.6	2.8	-5.2	-1.2	-2.2	14.4	7	-12.8	14	0	28	-7.2	64	66	+22	32	11	0	165	178	4.2	28	17.9	30	21	10	8	13	5.6	
HARTFORD	52	1007.1	1013.7	1.7	-9.8	-4.0	-1.9	13.9	7	-16.1	14+	0	30	-11.1	59	75	+28	46	11	0	185	127	2.2	28	18.8	NW	13	8	9	14	6.2	54
DELAWARE																																
WILMINGTON	23	1013.2	1016.4	4.0	-5.2	-0.6	-2.1	16.8	7	-13.3	30	0	28	-6.1	66	45	+39	29	9	0	81	51	2.4	28	14.8	30	21	12	5	14	5.8	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1004.7	1016.9	5.4	-6.3	-0.4	-1.6	10.6	23+	-14.4	30	0	26	-7.8	60	45	+43	33	9	0	15	T	2.0	27	16.5	27	21	13	7	11	5.2	
WASHINGTON NATIONAL	3	1014.9	1017.3	6.6	-2.7	1.9	-1.1	12.2	13+	-10.0	30	0	22	-5.6	60	51	+27	30	8	0	15	25	1.8	27	15.2	NW	13	15	4	12	5.2	64
FLORIDA																																
APALACHICOLA U	5	1019.3	1020.0	16.1	5.7	10.9	-2.0	22.2	28+	-1.7	22	0	4	6.7	78	128	43	25	12	0	C	0	1.4	4	11.6	NW	20	6	7	18	6.8	49
DAYTONA BEACH	9	1017.6	1019.1	20.3	10.1	15.2	-0.1	28.3	12	0.6	22	0	0	10.6	77	152	103	77	13	1	C	0	1.6	34	9.8	20	26+	8	4	19	6.9	
FORT MYERS	5	1018.0	1018.2	22.9	11.3	17.1	-1.1	29.4	12+	3.9	22	0	0	12.8	79	43	10	15	8	0	C	0	1.6	3	13.4	31	26	8	10	13	6.1	
JACKSONVILLE	8	1018.6	1019.7	17.3	5.8	11.6	-1.4	25.0	12	-3.3	22	0	5	7.2	78	122	56	41	13	0	C	0	1.4	32	13.9	NW	20	6	7	18	6.9	43
KEY WEST	1	1016.6	1017.3	24.4	18.8	21.6	-0.3	28.3	7	12.2	28	0	0	17.8	80	49	10	37	6	0	C	0	3.5	5	12.5	35	8	4	11	16	6.9	60
LAKELAND U	69			20.9	9.7	15.3	-1.3	28.3	12	0.0	22	0	1			52	-2	9	15		C	0						8	8	15	6.3	42
MIAMI	2	1017.6	1018.0	24.5	15.7	20.1	-0.1	29.4	7	6.7	27	0	0	16.1	78	41	+1	19	10	0	C	0	1.6	1	12.5	30	26	4	9	18	7.1	
ORLANDO/MC CY AFB	29	1014.9	1018.7	21.8	9.4	15.6	-0.8	28.9	11	0.6	21	0	0	11.1	78	70	22	19	15	1	C	0	1.4	35	11.2	33	21	7	6	18	6.6	
PENSACOLA	34	1016.3	1020.4	15.1	4.0	9.6	-2.6	21.7	12	-3.9	24	0	8	3.3	67	107	+11	43	11	0	C	0	1.6	1	11.2	33	20	8	8	15	6.4	
TALLAHASSEE	17	1018.0	1020.2	16.9	3.3	10.1	-1.7	25.0	12	-6.7	22	0	11	5.0	73	104	-3	26	12	1	T	0	1.3	36	10.3	17	25	7	7	17	6.7	
TAMPA	6	1018.6	1019.0	21.1	9.5	15.3	-1.1	29.4	11	0.0	22	0	1	10.0	75	52	-4	14	16	1	C	0	1.3	2	11.2	31	26	8	5	18	7.0	36
WEST PALM BEACH	5	1017.3	1017.9	23.7	14.1	18.9	-0.4	27.8	13	5.0	28	0	0	14.4	77	78	22	26	13	0	C	0	1.1	1	13.0	8	10+	4	9	18	7.2	
GEORGIA																																
ATHENS	244	989.5	1019.1	10.7	-0.5	5.1	-1.6	20.6	18	-10.6	22	0	19		63	134	24	48	11	0	C	0	1.5	29	9.4	27	29+	13	7	11	5.0	
ATLANTA	308	981.7	1019.3	10.2	-1.6	4.3	-2.1	20.0	19+	-10.6	22	0	20	-3.3	62	102	-6	32	10	0	C	0	1.5	31	12.5	29	29+	12	7	12	5.3	58
AUGUSTA	41	1013.9	1019.3	13.3	0.3	6.8	-1.2	20.6	18	-8.9	22	0	16	0.0	66	142	56	51	10	0	C	0	1.8	28	11.2	28	29+	12	5	14	5.5	
COLUMBUS	117	1005.8		13.6	0.8	7.2	-1.5	21.1	18	-8.3	22	0	17	1.1	71	98	-27	42	12	0	C	0	1.1	35	8.9	30	26	13	2	16	5.4	
MACON	109	1006.8	1020.0	13.9	1.1	7.6	-1.5	22.8	18	-9.4	22	0	13	1.7	69	107	-3	37	10	0	C	0	1.4	31	12.5	W	29	14	2	15	5.4	54
ROME	194			11.0	-2.9	4.1	-1.5	20.0	19+	-12.2	22	0	22			125	-2	34	10		T	0											
SAVANNAH	14	1018.0	1019.6	15.0	3.9	9.4	-0.8	22.8	12	-5.6	22	0	8	7.2	64	98	15	29	13	0	C	0	1.6	31	15.2	W	29	10	4	17	6.5	46
HAWAII																																
HILO	8	1014.6	1015.8	27.2	18.6	22.9	0.9	28.9	14+	16.1	19	0	0	18.3	78	187	-213	56	24	1	C	0	0.6	22	7.2	E	23	5	15	11	6.4	35
HONOLULU	2	1015.6	1015.9	28.4	19.7	24.1	0.9	30.6	9	16.1	2	0	0	16.1	62	2	-92	1	3	0	C	0	3.3	6	11.6	NE	29+	12	14	5	4.6	62
KAHULUI	15	1013.2	1015.5	28.7	18.8	23.7	1.2	30.6	13+	15.0	26+	0	0			3	-70	1	3	0	C	0	3.8	5	13.9	E	31	15	13	3	3.6	75
LIHUE	31	1011.9	1017.1	26.4	20.3	23.4	0.9	27.8	26	16.1	1	0	0	18.3	76	56	-105	19	16	0	C	0	3.3	5	9.8	NE	27+	5	19	7	5.5	63
IDAHO																																
BOISE	865	921.8	1025.5	5.4	-8.4	-1.5	-1.6	13.9	26	-13.3	21+	0	31	-7.8	67	2	-32	2	3	0	28	25	0.6	12	10.3	NW	8	8	12	11	5.6	65
LEWISTON	431			5.4	-1.4	2.0	0.4	13.3	27	-5.6	3+	0	23			7	+26	3	5		T	T			16.1Y		11	5	2	24	8.2	
POCATELLO	1358	866.9	1025.0	4.9	-8.9	-2.0	0.8	11.1	26+	-15.6	21	0	30	-10.0	60	5	-20	5	1	0	38	25	1.6	21	12.5	S	26	6	10	15	6.5	73
ILLINOIS																																
CAIRO U	96			7.2	-3.1	2.1	-1.8	19.4	19	-17.2	31	0	23			19	-83	9	2		T	T			13.4	SW	27					66
CHICAGO O HARE	201	991.5	1016.9	-1.8	-12.2	-7.0	-4.3	9.4	19	-22.2	31	0	30	-11.7	66	16	-25	6	9	0	165	102	2.9	26	13.9	29	23	10	8	13	6.1	
CHICAGO MIDWAY	185	993.9	1017.6	-1.4	-11.9	-6.7	-4.7	12.2	19	-22.2	31+	0	30	-11.1	69	22	-32	8	11	0	366	152	2.9	25	13.9	S	24	9	9	13	6.1	57
MOLINE	177	995.9	1018.7	-1.1	-12.8	-6.9	-3.9	10.6	18	-24.4	7	0	30	-12.8	63	9	-36	6	6	0	104	152	2.8	27	14.3	NW	23	13	8	10	5.4	73
PEORIA	199	993.6	1018.7	-0.1	-12.2	-6.1	-3.9	11.7	27	-23.9	31	0	31	-11.7	67	10	-38	8	3	0	104	76	2.2	26	14.3	NW	23	11	8	12	5.7	67
ROCKFORD	221	989.5	1018.1	-3.6	-15.3	-9.4	-5.5	6.1	19	-26.7	31	0	31	-13.9	68	9	-34	4	10	0	147	127	2.0	27	13.0	31	23	8	9	14	6.3	
SPRINGFIELD	179	996.3	1019.5	1.6	-10.3	-4.4	-3.6	14.4	19	-22.2	31	0	31	-8.3	75	17	-32	15	5	0	175	127	2.3	26	14.3	NW	20	9	12	10	5.5	65
INDIANA																																
EVANSVILLE	116	1005.1	1019.6	5.8	-6.0	-0.1	-1.9	19.4	19	-19.4	31	0	29	-6.7	65	14	-70	5	8	0	109	102	1.4	27	11.6	NW	20	13	6	12	5.3	65

CLIMATOLOGICAL DATA

METRIC UNITS

DECEMBER 1976

State and Station	Elevation above ground	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 32°C or above	Temperature: No. of days: Min. 0°C or below	Temperature: Average daily ground temp.	Average relative humidity daily	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Snow pellets: Total	Snow pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear 0-3	No. of days (sunrise to sunset): Partly cloudy 4-7	No. of days (sunrise to sunset): Cloudy 8-10	Sky cover tenths (sunrise to sunset)	Percent possible
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							
INDIANA																																
FORT WAYNE	241	985.8	1017.2	-0.2	-10.8	-5.5	-3.6	13.9	19	-25.6	31	0	30	-9.4	73	14	-41	5	8	0	241	76	3.4	25	12.5	SW	14	5	9	17	7.1	69
INDIANAPOLIS	241	988.2	1018.4	1.5	-6.8	-4.1	-3.5	10.8	19	-22.8	31	0	30	-7.2	79	11	-57	5	8		75	25	1.1	25	13.4	N	23	8	6	17	8.2	69
SOUTH BEND	234	987.1	1016.2	-0.3	-6.8	-3.2	-3.	11.7	19	-21.7	31	0	30	-8.3	75	56	-7	19	16	6	985	483	2.8	24	13.	SW	23+	3	5	23	8.0	
IOWA																																
BURLINGTON	211			3.6	-11.7	-5.6	-3..	15.	18	-24.4	31	0	31	-12.2	61	2	-38	2	2	0	5	51	2.3	28	12.5	SW	20	11	13	7	5.2	
DES MOINES	284	982.7	1014.	0.7	-12.1	-5.7	-1.8	17.8	18	-24.4	31	0	31	-12.9	60	3	-25	1	5	0	71	51	1.8	28	13.9	SW	19	7	13	11	5.9	63
DUBUQUE	322	977.0		-4.1	-15.0	-9.6	-4.6	7.2	19	-27.8	31	0	31			11	-37	6	9		145	127										
SIOUX CITY	336	977.7	1015.4	-0.2	-13.9	-7..	-2.3	15.6	18	-27.2	8	0	31	-11.1	74	10	-9	7	3		109	102	1.3	31				10	7	14	5.4	71
WATERLOO	268	984.4	1018.9	-4.0	-17.4	-10.7	-5.1	10.0	18	-30.6	31	0	31	-17.2	58	12	-19	8	6	0	135	102	2.0	29	13.4	SW	19	8	15	8	5.6	
KANSAS																																
CONCORDIA	448	965.1	1019.8	7.2	-8.2	-0.5	1.4	18.9	17	-21.7	31	0	29	-8.9	67	7	-20	T	0	0	T	T	1.8	28	15.2	NW	28+	17	8	6	3.9	84
DODGE CITY	787	926.2	1019.4	10.8	-6.1	2.4	1.1	21.7	17	-16.7	31+	0	29	-8.9	51	3	-12	1	1	0	T	25	1.7	29	17.9	N	19+	22	3	6	3.7	82
GARDEN CITY	1134	885.6	1018.9	8.0	-4.9	0.6	1.6	19.4	17	-16.7	30	0	30	-8.9	59	T	-16	2	1	0	T	51	2.4	28	13.9	SW	19	17	6	8	3.7	
TOPEKA	267	987.5	1021.1	6.1	-8.9	-1.9	-1.8	18.3	18	-23.3	31	0	31	-8.9	64	5	-34	5	2	0	T	T	1.3	28	19.2	W	20	13	8	10	4.4	80
WICHITA	407	971.2	1021.5	9.2	-7.3	0.9	-0.4	19.4	27+	-20.0	31	0	30	-8.3	56	2	-27	2	2	0	T	T	1.0	31	17.9	N	19	20	5	6	3.2	87
KENTUCKY																																
COVINGTON	265	984.4	1018.	3.3	-8.3	-2.4	-3.4	13.9	19	-18.9	31	0	29	-7.8	68	13	-60	6	9	0	25	25	2.8	25	12.5	NW	23	9	9	13	5.9	
LEXINGTON	296	980.4	1019.	5.2	-6.5	-0.6	-2.6	14.1	19	-17.8	31	0	27	-5.6	70	31	-61	20	8	0	41	25	2.1	22	10.3	29	26+	9	11	11	5.7	
LOUISVILLE	145	1000.7	1019.	6.6	-5.4	0.6	-1.4	18.3	19	-16.7	31	0	28	-5.0	69	17	-68	8	8	1	28	25	1.8	26	14.8	NW	26	10	9	12	5.5	68
LOUISIANA																																
ALEXANDRIA	29	1018.6	1021.	14.9	1.9	8.4	-1.2	32.2	30	-5.0	1	0	14	3.3	73	134	-6	58	9	0		0	0.7	34	9.4		31+	11	6	14	5.9	
BATON ROUGE	25	1018.0	1021.	16.3	3.6	9.9	-.7	30.2	30	-4.4	1	0	10	5.0	75	147	20	43	11	0	0	0	1.0	3	10.3	20	30+	9	9	13	6.0	
LAKE CHARLES	9	1019.3	1021.	15.4	5.0	10.7	-.7	31.7	31	-1.7	8+	0	6	4.0	72	171	26	36	13	1	0	0	1.2	6	10.3	26	20+	7	9	15	6.4	
NEW ORLEANS	1	1019.3	1021.	16.5	4.2	10.3	-3.3	23.9	19	-3.9	1	0	7	5.6	72	224	93	69	13	1	0	0	1.2	2	9.4	15	25+	7	7	17	6.5	52
SHREVEPORT	77	1012.	1021.	15.2	2.7	7.9	-1.6	21.7	30	-6.1	31	0	16	2.2	73	96	-11	44	8	1	0	0	0.4	32	11.6	SW	30	13	3	15	5.4	59
MAINE																																
CARIBOU	191	994.1		-7.3	-19.5	-13.4	-4.6	2.8	7	-27.8	29+	0	31			118	51	44	16		810	559						8	2	21	7.1	
PORTLAND	23	1004.8	1021.3	-1.0	-13.0	-7.0	-3.5	10.1	7	-21.1	28+	0	31	-12.8	66	82	-21	36	9	1	594	508	2.7	29	22.3	NW	11	12	3	16	5.9	63
MARYLAND																																
BALTIMORE	45	1011.2	1018.9	5.4	-4.8	0.3	-.5	13.2	20+	-11.7	3	0	25	-7.2	60	52	-31	35	9	0	28	25	1.7	29	17.0	NW	21	13	5	13	5.2	54
MASSACHUSETTS																																
BLUE HILL OBS'R	192			3.3	-9.1	-4.3	-3.1	12.8	7	-18.3	14	0	31			89	-30	29	10		572	432			29.5	N	13						53
BOSTON	6	1011.9	1022.4	2.9	-6.3	-1.7	-2.2	15.0	7	-14.4	14	0	29	-9.4	58	85	-23	29	9	1	437	345	4.8	28	24.6	SW	10	9	8	14	6.3	58
WORCESTER	301	973.9		-1.8	-10.4	-5.6	-2.9	11.7	7	-19.4	14	0	31			81	-19	43	10	1	343	178	3.7	28	17.4	28	13+	7	7	17	4.7	
MICHIGAN																																
ALPENA	210	984.8	1013.3	-4.5	-14.4	-9.4	-4.7	5.6	14	-23.3	30	0	31	-12.2	77	45	-31	3	12	0	351	254	2.2	26	11.2	NW	2	1	6	24	8.5	29
DETROIT	189			-1.4	-8.2	-4.3	-3.1	10.4	20	-16.7	31	0	30	-10.0	64								3.7	24	13.9	22	14					
DETROIT METRO	193	99..	1015.	-0.9	-10.8	-5.8	-3.9	10.8	19	-20.6	31	0	31	-10.0	70	20	-38	6	15		245	127	3.4	25	16.5	NW	23	6	4	21	7.3	49
FLINT	235	985.4	1014.6	-3.3	-12.9	-8.1	-5.2	7.2	14	-23.9	31	0	31	-11.1	74	23	-19	7	14		447	203	3.2	25	13.4	22	14	5	4	22	7.6	
GRAND RAPIDS	235	984.8	1015.2	-2.2	-12.0	-7.2	-4.6	7.2	19	-25.6	31	0	31	-10.6	73	27	-28	4	18	0	450	203	2.4	24	14.8	SW	14	3	4	24	8.4	29
HOUGHTON LAKE	350	969.5	1013.8	-5.1	-15.1	-10.1	-4.9	2.8	10	-29.4	30	0	31	-12.2	79	17	-30	3	16		472	229	2.1	26	11.6	28	10	1	10	20	8.0	
LANSING	254	983.1	1015.	-0.7	-12.8	-7.8	-5.1	6.7	19	-27.2	30	0	30	-10.0	82	24	-26	7	17	1	521	178	3.9	24	15.2	SW	14	3	4	24	8.2	47
MARQUETTE	204			-5.9	-13.4	-9.7	-4.9	5.0	14	-22.8	29	0	31			45	-5	11	22		846	508			13.9	NW	20						42
MUSKEGON	191	991.2	1015.2	-2.4	-10.3	-6.3	-4.4	5.1	19	-26.1	31	0	30	-9.4	76	44	-18	8	22	0	937	305	2.2	27	13.9	22	14+	2	2	27	8.9	
SAULT STE MARIE	220	984.8	1018.7	-6.6	-18.1	-12.3	-5.7	3.9	14	-31.1	2	0	31	-15.0	78	49	-11	6	26	0	886	635	0.8	34	20.1	NW	10	4	3	24	8.4	29
MINNESOTA																																
DULUTH	435	961.4	1016.1	-9.9	-20.7	-15.3	-5.5	3.3	14	-32.2	7	0	31	-20.0	65	10	-26	4	7		198	152	2.4	29	13.4	W	14	8	5	18	6.6	45
INTERNATIONAL FALLS	359	971.6	1016.8	-13.2	-25.7	-19.4	-6.5	2.3	14	-36.7	29	0	31	-22.2	72	15	-10	5	13	0	315	152	1.4	28	10.7	30	14	5	6	19	7.1	
MINNEAPOLIS	256	984.8	1018.0	-4.7	-15.8	-10.2	-2.8	6.7	18	-30.6	31	0	31	-17.2	58	13	-10	5	10	0	211	102	1.7	29	11.6	NW	22+	6	7	18	6.8	54
ROCHESTER	396	967.2	1017.8	-5.9	-19.0	-12.4	-5.2	5.6	18	-32.8	31	0	31	-15.6	75	12	-8	4	10	0	196	102	2.9	27	13.4	SW	22+	4	11	16	6.8	
ST CLOUD	313	979.0		-7.1	-20.4	-13.7	-4.7	5.6	14	-36.7	31	0	31			8	-14	4	5		122	91						8	4	19	6.9	

CLIMATOLOGICAL DATA

METRIC UNITS

DECEMBER 1976

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No of days: Max 32.2 °C or above	Temperature: No of days: Min 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunr se to sunset): Clear 0-3	No. of days (sunr se to sunset): Partly cloudy, 4-7	No. of days (sunr se to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m s		m s							%
MISSISSIPPI																																
JACKSON	94	1008.5	1020.7	13.9	0.4	7.2	-2.2	21.7	18	-7.2	22+	0	18	1.7	73	87	-41	30	8	0	C	0	0.0	32	15.6	35	20	13	4	14	5.5	55
MERIDIAN	88	1009.8	1021.1	14.1	-0.9	6.6	-2.2	21.7	18	-8.9	22	0	21	0.6	73	109	-33	45	9	0	C	0	0.7	28	8.0	31	31	12	6	13	5.7	
MISSOURI																																
COLUMBIA REGIONAL	270	986.1	1019.7	3.5	-8.9	-2.7	-3.1	16.7	18	-24.4	31	0	29	-8.3	67	15	-30	10	4	0	84	51	1.5	27	15.2	N	30	16	6	9	4.5	60
KANSAS CITY	309	981.4	1019.8	4.9	-8.2	-1.7	-1.8	17.8	18	-23.9	31	0	28	-8.9	61	3	-36	2	3	0	5	T	1.3	27	22.4	N	28	12	13	6	4.3	80
ST JOSEPH	247			5.0	-9.5	-2.2	-1.5	17.8	18	-23.3	31	0	31			2	-32	2	1		T											
ST LOUIS	163	999.0	1020.0	4.4	-8.3	-1.9	-3.4	20.0	19	-23.3	31	0	30	-6.7	72	29	-23	23	5	0	132	76	2.1	28	13.9	NW	19	15	9	7	4.3	72
SPRINGFIELD	386	972.9	1019.8	8.2	-6.7	0.8	-1.4	20.6	18	-21.1	31	0	30	-7.8	57	25	-37	24	4	0	48	25	1.0	24	15.6	S	9	16	8	7	4.1	72
MONTANA																																
BILLINGS	1087	891.0	1017.9	4.9	-5.4	-0.3	2.6	15.0	17	-17.8	31	0	26	-10.0	51	8	-9	5	5	0	157	127	4.7	25	15.2	W	16	3	8	20	7.6	40
GLASGOW	696	933.0	1018.2	-1.6	-13.0	-7.3	1.0	7.8	26	-25.0	31	0	31	-11.1	76	7	-1	2	9	0	102	51	1.2	34	14.8	33	28	1	7	23	8.3	
GREAT FALLS	1116	888.3	1019.3	5.2	-5.7	-0.2	2.8	15.0	17	-15.6	31+	0	25	-7.8	60	13	-5	3	9	0	211	102	5.3	23	18.8	SW	26+	1	8	22	8.3	36
HAVRE	788	922.8	1017.6	2.6	-8.5	-2.9	4.7	16.1	17	-20.6	10	0	29	-7.8	70	10	-1	4	7	0	122	76	3.2	25	19.2	SW	26	1	14	16	7.8	31
HELENA	1167	883.2	1022.6	3.6	-7.3	-1.8	3.0	13.3	26	-14.4	31	0	29	-8.3	63	1	-14	1	3	0	23	25	2.0	27	17.0	SW	27	3	7	21	7.8	41
KALISPELL	904	915.3	1023.2	1.9	-7.2	-2.7	1.9	7.8	16	-13.3	20	0	29	-5.6	82	17	-21	7	6	0	183	102	0.9	20	8.9	5	31	2	5	24	8.5	
MILES CITY	801	921.8	1017.8	2.3	-9.6	-3.6	1.9	12.2	26	-23.9	30	0	30	-7.8	71	7	-5		7	0	66		2.2	30								
MISSOULA	972	908.6	1024.8	-0.3	-8.2	-4.2	-0.2	6.1	26	-15.0	20	0	31	-6.1	90	6	-22	4	5	0	76	25	0.3	31	12.1	NW	27	0	6	25	8.9	14
NEBRASKA																																
GRAND ISLAND	561	950.9	1019.3	5.6	-9.9	-2.2	0.6	19.4	18+	-23.3	30	0	31	-10.0	60	1	-13	1	3	0	10	T	2.4	28	16.5	33	28	13	10	8	4.6	
LINCOLN	359	975.3	1019.8	4.0	-12.5	-4.2	-1.6	20.0	18	-26.7	31	0	31	-11.1	62	1	-18	1	2	0	15	T	1.5	30	17.9	NW	19	15	6	10	4.7	70
NORFOLK	471	960.7	1018.6	2.1	-11.9	-4.9	-0.6	18.3	18	-24.4	31	0	31	-12.8	58	5	-11	3	4	0	81	51	2.9	30	20.6	34	19	13	6	12	5.5	
NORTH PLATTE	846	918.4	1019.6	6.9	-11.2	-2.1	0.8	19.4	17	-23.9	30	0	31	-10.6	60	T	-10	T	1	0	T	T	2.0	31	25.5	NW	28	8	16	7	5.0	72
OMAHA	298	982.7	1019.7	3.2	-12.0	-4.4	-2.2	20.6	18	-26.1	30	0	31	-9.4	69	5	-16	3	4	0	71	51	1.0	31	15.2	NW	19	11	8	12	5.3	60
SCOTTSBLUFF	1206	879.4	1019.0	8.1	-7.9	0.1	2.6	17.8	17	-17.2	6	0	31	-9.4	56	3	-8	2	3	0	33	51	3.4	31	15.6	31	29+	12	10	9	4.9	
VALENTINE	789	923.1		3.9	-12.4	-4.3	-0.1	18.9	17	-24.4	30	0	31	-10.0	68	6	-2	4	3		89	51	2.6	30	20.6	NW	7	14	7	10	5.1	63
NEVADA																																
ELKO	1539	849.0	1025.5	7.4	-12.4	-2.4	0.9	13.3	8	-18.9	21	0	31	-15.6	45	T	-29	T	0	0	T	0	0.2	36	8.9	26	23	15	7	9	4.4	
ELY	1906	811.4	1024.0	8.7	-13.9	-2.6	0.6	15.0	2	-19.4	20	0	31	-21.7	28	T	-18	T	0	0	T	0	1.9	20	8.5	S	21+	18	2	11	3.9	87
LAS VEGAS	659	942.8	1020.8	16.4	-0.4	8.0	0.7	21.1	15	-4.4	22	0	20	-11.7	27	1	-9	1	1	0	C	0	1.3	24	14.3	NW	10	21	5	5	2.7	96
RENO	1342	870.0	1024.1	10.0	-11.7	-0.8	-1.4	17.2	8	-15.0	24+	0	31	-10.0	58	T	-27	T	1	0	13	T	0.4	18	11.6	NW	9	19	5	7	3.5	85
WINNEMUCCA	1311	873.4	1025.3	10.7	-13.9	-1.6	-0.7	18.9	8	-19.4	21	0	31	-13.3	48	1	-23	1	1	0	10	T	0.6	13	10.7	NW	9	16	9	6	4.2	85
NEW HAMPSHIRE																																
CONCORD	104	999.3	1012.6	-1.7	-15.9	-8.8	-4.8	10.0	7	-25.6	14	0	31	-12.8	75	58	-25	30	8	0	295	127	2.3	28	15.6	NW	13	9	7	15	6.2	54
MT WASHINGTON OBS	1909			-12.1	-23.4	-17.8	-4.9	0.0	7	-36.1	13+	0	31			345	166	90	21	0	2083	559			61.2Y	NW	22	2	4	25	8.8	25
NEW JERSEY																																
ATLANTIC CITY	20	1013.5	1016.1	4.6	-6.8	-1.1	-2.8	12.8	7	-14.4	14+	0	28	-7.8	61	64	-38	33	9	0	102	76	3.0	28	15.6	30	13	11	7	13	5.4	54
ATLANTIC CITY U	3			4.9	-2.2	1.4	-1.8	11.7	7	-8.9	30+	0	21			61	-29	30	10						15.6	WNW	21					
NEWARK	2	1014.6	1015.4	2.6	-5.8	-1.6	-3.0	13.3	7	-13.3	30	0	27	-8.3	63	55	-33	29	10	0	170	127	2.7	28	15.6	29	21+	11	7	13	5.8	
TRENTON U	17			3.3	-4.7	-0.7	-2.3	13.9	7	-12.8	30	0	26			46	-37	26	9		114	76			17.9	NW	2	13	6	12	5.3	53
NEW MEXICO																																
ALBUQUERQUE	1619	840.2	1021.8	8.7	-7.6	0.6	-1.8	12.2	27	-11.7	29	0	31	-9.4	54	5	-8	3	3	0	30	51	1.1	1	15.2	E	10	20	7	4	2.8	86
CLAYTON	1515			10.4	-5.7	2.3	0.6	20.6	27	-13.9	31+	0	30			1	-7	1	1		13	25										
ROSWELL	1112	892.3	1019.5	13.4	-5.3	4.1	0.0	22.2	27	-8.3	31+	0	30	-7.8	49	0	-12	0	0	0	C	0	0.7	33	11.2	NE	28	22	6	3	2.6	85
NEW YORK																																
ALBANY	84	1003.4	1014.6	0.0	-11.8	-5.9	-2.5	7.8	20+	-18.3	14+	0	31	-10.0	73	35	-39	22	11	0	198	76	2.4	26	21.5	NW	13	7	8	16	6.6	49
BINGHAMTON	485	953.3	1014.3	-2.0	-11.1	-6.5	-2.8	9.4	20	-20.0	30	0	31	-10.0	75	43	-26	23	17	0	312	102	3.2	25	15.2	W	2	2	9	20	7.7	44
BUFFALO	215	987.1	1014.0	-1.2	-9.9	-5.6	-3.3	7.8	20+	-19.4	3	0	31	-8.9	76	97	21	25	24	0	1542	787	3.9	24	19.2	SW	14	1	5	25	8.8	30
NEW YORK U	40	1012.2	1015.4	2.6	-4.9	-1.2	-3.1	12.8	7	-12.8	3	0	25	-8.3	60	58	-31	34	7	0	130	76	2.4	30	12.5	NW	13					60
NEW YORK KENNEDY	4	1014.6	1015.4	2.8	-4.9	-1.1	-2.7	12.2	7	-12.2	30	0	26	-7.2	65	51	-40	27	9	0	147	102	3.8	29	15.6	30	21	10	9	12	5.5	
NEW YORK LA GUARDIA	3	1014.6	1015.6	3.1	-4.6	-0.7	-2.7	13.9	7	-12.2	30	0	25	-8.3	57	57	-36	29	9	0	124	76	3.4	28	18.3	NW	13	10	9	12	5.6	
ROCHESTER	167	993.2	1014.1	0.1	-9.5	-4.7	-2.6	10.0	20	-18.9	30	0	31	-7.2	80	38	-22	13	18	0	622	178	3.8	24	14.8	N	11+	2	6	23	8.1	37

CLIMATOLOGICAL DATA

METRIC UNITS

DECEMBER 1976

State and Station	Elevation ground	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max. 32.2°C or above	Min. 0°C or lower	Average dew point	Average relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	No. of days: 25 mm or more	With thunderstorms	Snow, ice pellets: Total	Maximum depth on ground	Wind: Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Direction	Date	No. of days sunrise to sunset: Clear 0-3	Partly cloudy 4-7	Cloudy 8-10	Sky cover tenths, sunrise to sunset	Possible sunshine
	m	mb	mb	C	C	C	C	C		C				C	%	mm	mm	mm			mm	mm	m/s		m/s							
NEW YORK																																
SYRACUSE	125	998.4	1004.[illegible]	-[illegible].2	-10.3	-5.2	-3.1	12.8	20	-22.2	3	0	30	-9.4	71	46	-33	17	17	0	653	152	2.3	25	18.3	[illegible]	11	2	3	26	9.4	38
NORTH CAROLINA																																
ASHEVILLE	682	94.4	1018.2	9.0	-4.3	2.3	-1.4	18.9	19	-14.4	22	0	25	-4.4	65	109	12	47	10	0	8	T	1.8	34	12.5	32	21+	18	3	10	4.2	66
CAPE HATTERAS	2	1017.3	1017.8	12.8	3.3	8.1	-0.7	20.6	7	-6.1	25	0	12	3.3	73	178	60	69	15	0	T	0	1.8	32	13.0	23	28	9	10	12	5.9	48
CHARLOTTE	224	99.6	1018.8	9.4	-1.4	3.9	-1.9	18.3	19	-10.0	22	0	19	-3.3	61	142	55	49	11	0	T	0	0.9	29	12.5	NW	21	17	3	11	4.7	60
GREENSBORO	273	98.8	1018.2	8.8	-2.2	2.8	-1.4	17.2	19	-11.7	22	0	22	-3.3	66	100	20	37	11	0	30	T	1.5	27	14.3	NW	21	17	3	11	4.6	65
RALEIGH	130	1002.0	1018.3	9.2	-3.4	2.8	-2.3	17.8	19	-12.8	22	0	24	-3.3	68	103	24	30	11	0	T	0	1.1	28	11.2	NW	29	17	3	11	4.6	64
WILMINGTON	9	1017.3	1018.4	13.9	2.[illegible]	8.0	-0.6	20.6	19	-7.2	22	0	13	2.7	70	136	51	37	12	0	T	0	1.3	31	13.9	NW	21	10	4	17	6.1	54
NORTH DAKOTA																																
BISMARCK	522	955.4	1018.2	-2.7	-16.4	-9.6	-0.4	8.3	27+	-29.4	6	0	31	-12.2	78	14	3	4	14	0	196	102	2.1	31	13.9	NW	29+	6	8	17	7.3	33
RAMO	293	983.1	1018.[illegible]	-8.8	-19.1	-13.9	-3.4	6.7	16	-33.9	30	0	31	-17.8	70	[illegible]	-10	2	7	[illegible]	140	81	0.9	30	15.2	[illegible]	19	5	8	18	7.4	45
WILLISTON	502	944.2	1018.[illegible]	-3.1	-16.4	-9.7	-0.5	6.1	17+	-29.4	30+	0	31	-12.8	78	12	0	6	9	0	175	127	2.3	29	13.9	NW	9	2	9	20	7.8	27
OHIO																																
AKRON	368	97.[illegible]	1016.6	[illegible].3	-9.7	-4.7	-3.2	13.9	19	-21.7	31	0	31	-8.9	7[illegible]	36	-25	17	16	0	188	152	3.5	24	12.1	31	26+	5	6	20	7.5	
CINCINNATI ABBE OB	232			4.3	-6.4	-1.2	-2.5	14.4	19	-18.9	31	0	29			14	-59	5	6						11.6	[illegible]	23					50
CLEVELAND	237	98[illegible].5	1016.6	[illegible].5	-10.[illegible]	-4.8	-3.9	14.[illegible]	19	-23.9	31	0	30	-9.4	71	40	-20	11	19	0	414	152	3.2	23	10.7	SW	14	2	5	24	8.3	
COLUMBUS	247	98[illegible].3	1017.[illegible]	[illegible].7	-8.7	-4.0	-3.3	12.8	19	-20.6	31	0	31	-9.4	66	24	-37	13	9	[illegible]	117	76	2.3	24	10.5	[illegible]	23	3	10	18	7.5	41
DAYTON	307	980.4	1017.7	3.3	-8.5	-3.1	-2.5	13.3	19	-21.1	31	0	30	-7.8	72	17	-41	7	9	0	99	76	2.8	25	14.8	[illegible]	23	4	11	16	7.1	42
MANSFIELD	396			-1.2	-11.6	-6.3	-5.6	12.2	19	-23.3	31	0	31			19	-36	6	10	0	305	102	3.7	23	13.4	21	10	[illegible]	6	21	7.4	
TOLEDO	204	99.2	10[illegible].4	-[illegible].1	-11.[illegible]	-6.7	-4.5	13.9	19	-23.9	3+	0	31	-10.6	73	24	-33	5	14	0	262	76	2.8	25	14.8	NW	23	3	9	19	7.4	46
YOUNGSTOWN	365	971.9	1016.1	-0.9	-10.1	-5.5	-3.7	11.1	19	-21.1	31+	0	31	-10.0	69	42	-23	19	17	0	277	178	3.3	24	11.2	31	21	3	6	22	8.2	
OKLAHOMA																																
OKLAHOMA CITY	342	972.6	[illegible]20.4	11.5	-3.9	3.8	-0.7	21.7	17	-15.6	31	0	25	-5.6	57	5	-27	5	2	0	T	T	[illegible].6	32	18.3	NE	30	19	5	7	3.1	79
TULSA	198	995.6	1020.5	10.2	-4.6	2.8	-2.5	21.7	17	-16.7	31	0	28	-5.6	60	14	-28	14	2	0	T	T	0.4	25	15.2	[illegible]	30	17	8	6	3.6	71
OREGON																																
ASTORIA	2	1020.[illegible]	102[illegible].9	9.9	2.8	6.4	4.4	13.3	15+	-2.8	2	0	9	3.9	86	107	-162	41	15	0	T	0	1.5	12	14.3	18	25	4	3	24	8.0	
BURNS	1265			7.1	-9.4	-1.2	1.1	21.7	26+	-25.0	31	0	31			T	-44	T	0		T	T			14.3V		26+	9	12	10	5.6	
EUGENE	109	1008.5	1022.[illegible]	6.9	-0.4	3.2	-2.1	16.1	15	-5.0	2+	0	21	1.7	93	31	-163	12	7	0	0	0	0.5	19	8.0	17	26+	0	4	27	9.3	
MEDFORD	394	974.4	1024.1	3.6	-3.9	-0.2	-3.3	13.2	[illegible]	-7.2	24	0	31	-1.7	94	9	-85	[illegible]	6	0	T	T	0.2	31	4.0	[illegible]	30	4	5	22	8.2	
PENDLETON	452	968.5	1023.4	6.6	-2.3	2.2	-0.1	16.7	11	-9.4	2	0	23	-2.2	78	11	-28	[illegible]	4	0	15	25	1.8	24	17.9	27	8	6	[illegible]	20	7.3	
PORTLAND	4	1021.[illegible]	1022.3	7.4	-0.8	4.2	-0.7	16.2	26	-5.0	31	0	12	2.2	88	35	-118	12	10	0	0	0	1.1	14	11.2	SW	26+	4	2	25	8.4	28
SALEM	60	1014.6	1022.[illegible]	7.3	[illegible].3	3.8	-1.2	15.6	15	-6.1	2+	0	13	1.7	86	32	-142	15	8	0	0	0	0.9	20	10.3	22	8	3	2	26	8.5	
SEXTON SUMMIT 3	1169	884.6	1[illegible].[illegible]	[illegible].1	3.[illegible]	6.[illegible]	3.9	16.7	2	-1.1	9+	0	3			12	-145	8	5		38	25			14.3	20	26					
PROMIS AREA																																
CLAY MOUNT 2	11[illegible]			29.[illegible]	21.4	[illegible].3	-0.5	30.[illegible]	9+	17.8	6	0	0			226	79	113	24		0	0			11.6	E	14	0	11	20	7.9	66
JOHNSTON	2	1010.2	1018.8	[illegible]7.4	23.4	[illegible]5.5	[illegible].2	28.3	5	21.1	9	0	0	21.1	77	47	-39	35	14	0	0	0	8.3	8	15.6	E	23+	15	13	3	4.1	76
KOHLER 2	99	1004.7		30.8	24.3	[illegible]7.6	[illegible].2	32.2	25+	23.3	31+	3	0			420	93	99	24	3	0	0	1.6	8	10.7	SE	28	0	8	23	8.4	47
MALBAEIN	2			[illegible]9.7	25.3	[illegible]7.5	[illegible].[illegible]	30.[illegible]	16+	22.0	11	0	0			62	-172	28	14	0	0	0			11.6	[illegible]	17	3	7	21	[illegible].[illegible]	
MILTON	2	100[illegible].1		[illegible]9.2	24.3	[illegible]6.7	[illegible].6	30.[illegible]	18+	22.8	17	0	0			70	-231	14	17		0	0	6.[illegible]	7	11.2	E	25+	0	3	28	9.2	55
PARK FALLS	4	100[illegible].8	1027.1	[illegible]9.9	23.[illegible]	[illegible]6.7	[illegible].1	32.2	30+	20.0	13	2	0	23.3	83	[illegible]43	164	133	26	5	0	0	2.1	8	22.4	S	11	0	7	24	8.7	26
RHINELANDER	37			30.[illegible]	24.[illegible]	[illegible]7.[illegible]	[illegible].1	31.7	5	22.6	24+	0	0			342	+63	76	27	1	0	0			7.6	E	30+	0	4	27	9.7	14
TWIN BRIDGES ISLAND	2	100[illegible].1		32.1	25.1	[illegible]7.6	[illegible].[illegible]	31.1	20	23.3	7+	0	0			169	-191	58	20	0	0	0	4.3	6	12.5	NE	[illegible]	0	0	1	9.8	31
LAKE	3	1013.[illegible]	10[illegible].8	[illegible].[illegible]	23.3	[illegible]6.2	[illegible].3	30.[illegible]	26+	21.7	24+	0	0	21.7	79	[illegible]4	-28	14	[illegible]	0	0	0	5.[illegible]	9	12.5	SE	10+	26	5	[illegible]	2.2	78
NAU O	13	100[illegible].4		[illegible]8.3	23.1	[illegible]6.7	[illegible].5	31.1	19+	21.7	29+	0	0			253	2	44	23	2	0	0	3.2	9	11.6	SE	[illegible]	0	9	22	8.1	61
PENNSYLVANIA																																
ALLENTOWN	118	1001.7	1[illegible]5.2	[illegible].9	-7.[illegible]	-2.8	-2.[illegible]	11.1	7	-15.6	30	0	29	-7.8	68	61	-30	43	10	0	152	127	2.8	28	16.5	29	13	10	9	12	5.9	
ERIE	223	987.8	1016.[illegible]	-0.7	-8.3	-4.5	-2.9	11.1	[illegible].9	-18.9	31	0	31	-8.3	75	57	-14	17	24	0	701	381	4.2	23	14.3	30	13	0	4	27	9.1	
HARRISBURG	112	1003.1	1016.4	[illegible].9	-6.1	-1.1	-1.4	[illegible].6	20	-[illegible].9	30	0	26			50	-28	37	6	0	130	102	[illegible].1	29	21.0	NW	2.	11	7	13	5.8	[illegible]
PHILADELPHIA	2	1016.4	[illegible]16.5	3.6	-5.4	-0.9	-2.7	14.4	7	-13.9	30	0	28	-7.8	62	41	-42	25	10	0	91	25	2.6	28	15.2	NW	21	13	6	12	5.3	57
PITTSBURGH	367	971.2	1016.9	[illegible].4	-9.5	-4.5	-3.7	13.3	19	-21.7	3	0	31	-11.1	69	46	-17	25	16	0	201	102	3.0	26	14.3	26	23	[illegible]	5	22	7.6	41
SCRANTON	283	98[illegible].0	1015.3	-[illegible].4	-9.7	-5.[illegible]	-3.4	[illegible].4	20	-17.8	3[illegible]	0	31	-[illegible].5	69	39	-24	27	9	0	170	51	2.2	26	16.1	NW	13	3	14	14	7.0	48
WILLIAMSPORT	160	99[illegible].3	1015.4	1.6	-8.3	-3.3	-2.3	[illegible].1	21+	-17.8	30	0	30	-9.4	64	44	-35	36	9	0	152	76	1.6	30	12.5	31	21+	4	12	15	6.8	
RHODE ISLAND																																
BLOCK ISLAND	[illegible]			2.6	-5.[illegible]	-1.3	-3.[illegible]	11.7	7	-13.3	14+	0	27			77	-27	26	9		140	127										

RHODE ISLAND
PROVIDENCE

SOUTH CAROLINA
CHARLESTON
CHARLESTON C
COLUMBIA
GREENVILLE-SPARTANBRG

SOUTH DAKOTA
ABERDEEN
HURON
RAPID CITY
SIOUX FALLS

TENNESSEE
BRISTOL
CHATTANOOGA
KNOXVILLE
MEMPHIS
NASHVILLE
OAK RIDGE A

TEXAS
ABILENE
AMARILLO
AUSTIN
BROWNSVILLE
CORPUS CHRISTI
DALLAS - FORT WORTH
DEL RIO
EL PASO
GALVESTON
HOUSTON INTERCON
LUBBOCK
MIDLAND
PORT ARTHUR
SAN ANGELO
SAN ANTONIO
VICTORIA
WACO
WICHITA FALLS

UTAH
MILFORD
SALT LAKE CITY

VERMONT
BURLINGTON

VIRGINIA
LYNCHBURG
NORFOLK
RICHMOND
ROANOKE
WALLOPS ISLAND

WASHINGTON
OLYMPIA
QUILLAYUTE
SEATTLE U

CLIMATOLOGICAL DATA

HEATING DEGREE DAYS

(Base 65°F.)

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	732	1560	1148
HUNTSVILLE	746	1749	1312
MOBILE	520	1099	835
MONTGOMERY	657	1339	911
ALASKA			
ANCHORAGE	1294	4261	4874
ANNETTE	787	2696	2988
BARROW	2592	8628	8607
BARTER ISLAND	2710	8676	8436
BETHEL	1808	5532	5705
BETTLES	2310	8341	7167
BIG DELTA	1884	5187	6267
COLD BAY	1134	4442	4242
FAIRBANKS	2136	5758	6507
GULKANA	1874	5222	6386
HOMER	1033	4047	4637
JUNEAU	938	3316	3957
KING SALMON	1413	4969	5116
KODIAK	1016	3657	3848
KOTZEBUE	2152	6307	6673
MC GRATH	2204	6196	6543
NOME	1725	5793	6132
ST. PAUL ISLAND	1280	4915	4709
TALKEETNA	1409	4621	5290
UNALAKLEET	1791	5556	6077
VALDEZ	1137	4133	4752
YAKUTAT	959	3631	4157
ARIZONA			
FLAGSTAFF	1027	2655	2883
PHOENIX	285	399	587
TUCSON	390	613	653
WINSLOW	1041	2169	1892
YUMA	248	321	384
ARKANSAS			
FORT SMITH	837	1856	1302
LITTLE ROCK	710	1535	1314
CALIFORNIA			
BAKERSFIELD	424	630	861
BISHOP	798	1487	1693
BLUE CANYON	589	1605	1952
EUREKA U	535	1931	2008
FRESNO	566	977	1030
LONG BEACH	180	222	505
LOS ANGELES	145	212	571
LOS ANGELES A	138	200	371
MT SHASTA R	848	2115	2282
OAKLAND	469	871	1107
RED BLUFF	468	702	998
SACRAMENTO	567	864	1061
SANDBERG R	575	1289	1479
SAN DIEGO	129	168	462
SAN FRANCISCO	404	1041	1145
SAN FRANCISCO A	315	942	1244
SANTA MARIA	402	780	1148
STOCKTON	581	865	1052
COLORADO			
ALAMOSA	1596	3949	3564
COLORADO SPRINGS	988	2642	2512
DENVER	907	2324	2300
GRAND JUNCTION	1153	2384	2241
PUEBLO	996	2462	2108
CONNECTICUT			
BRIDGEPORT	1179	2174	1840
HARTFORD	1242	2637	2354
DELAWARE			
WILMINGTON	1047	2216	1804
DIST. OF COLUMBIA			
WASHINGTON DULLES	1098	2351	1904
WASHINGTON NATIONAL	937	1876	1570
FLORIDA			
APALACHICOLA U	411	804	498
DAYTONA BEACH	299	388	309
FORT MYERS	124	188	156
JACKSONVILLE	376	790	497
KEY WEST	10	10	18
LAKELAND U	199	314	228
MIAMI	32	41	69
ORLANDO	197	319	245
PENSACOLA	494	1008	580
TALLAHASSEE	456	915	611
TAMPA	208	341	240
WEST PALM BEACH	48	83	100
GEORGIA			
ATHENS	735	1507	1188
ATLANTA	775	1660	1220
AUGUSTA	695	1316	1028
COLUMBUS	615	1285	941
MACON	593	1211	904
ROME	787	1691	1363
SAVANNAH	49	1037	771
IDAHO			
BOISE	1097	2366	2321
LEWISTON	907	1910	2221
POCATELLO	1127	2677	2787
ILLINOIS			
CAIRO U	898	1936	1472
CHICAGO O HARE	1408	3031	2424
CHICAGO MIDWAY	1388	2963	2251
MOLINE	1403	3138	2398
PEORIA	1357	3009	2305
ROCKFORD	1545	3453	2578
SPRINGFIELD	1260	2749	2101
INDIANA			
EVANSVILLE	1021	2225	1794
FORT WAYNE	1322	2932	2337
INDIANAPOLIS	1249	2737	2126
SOUTH BEND	1302	2934	2399
IOWA			
BURLINGTON	1330	2959	2313
DES MOINES	1333	2901	2513
DUBUQUE	1554	3468	2769
SIOUX CITY	1411	3202	2649
WATERLOO	1615	3627	2832
KANSAS			
CONCORDIA	1043	2429	2132
DODGE CITY	879	2144	1934
GOODLAND	987	2582	2372
TOPEKA	1126	2523	2006
WICHITA	966	2207	1795
KENTUCKY			
COVINGTON	1157	2624	1921
LEXINGTON	1050	2422	1913
LOUISVILLE	982	2161	1787
LOUISIANA			
ALEXANDRIA	548	1189	865
BATON ROUGE	464	1005	643
LAKE CHARLES	419	932	551
NEW ORLEANS	438	906	546
SHREVEPORT	574	1244	838
MAINE			
CARIBOU	1765	4354	3714
PORTLAND	1404	3269	2785
MARYLAND			
BALTIMORE	1001	2128	1765
MASSACHUSETTS			
BLUE HILL OBS R	1257	2784	2272
BOSTON	1108	2255	1971
WORCESTER	1331	3062	2518
MICHIGAN			
ALPENA	1547	3608	3192
DETROIT	1257	2665	2247
DETROIT METRO	1341	2968	2372
FLINT	1467	3172	2615
GRAND RAPIDS	1415	3222	2513
HOUGHTON LAKE	1582	3786	3172
LANSING	1449	3333	2564
MARQUETTE	1556	3701	3087
MUSKEGON	1371	3167	2516
SAULT STE MARIE	1706	4070	3453
MINNESOTA			
DULUTH	1871	4468	3767
INTERNATIONAL FALLS	2112	4850	4157
MINNEAPOLIS	1590	3480	3093
ROCHESTER	1715	3872	3127
ST CLOUD	1787	4096	3397
MISSISSIPPI			
JACKSON	614	1339	896
MERIDIAN	649	1440	972
MISSOURI			
COLUMBIA REGIONAL	1169	2597	1920
KANSAS CITY	1108	2487	1933
ST JOSEPH	1141	2545	2063
ST LOUIS	1125	2437	1801
SPRINGFIELD	975	2228	1752
MONTANA			
BILLINGS	1030	2633	2796
GLASGOW	1421	3474	3450
GREAT FALLS	1031	2615	2950
HAVRE	1179	3042	3393
HELENA	1120	2942	3297
KALISPELL	1162	3299	3565
MILES CITY	1219	3066	3061
MISSOULA	1253	3219	3289
NEBRASKA			
GRAND ISLAND	1139	2729	2457
LINCOLN	1254	2869	2361
NORFOLK	1287	3001	2663
NORTH PLATTE	1133	2960	2643
OMAHA	1265	2795	2275
SCOTTSBLUFF	1011	2584	2650
VALENTINE	1255	3121	2813
NEVADA			
ELKO	1154	2764	3014
ELY	1162	3051	3072
LAS VEGAS	569	820	1045
RENO	1062	2398	2430
WINNEMUCCA	1104	2390	2669
NEW HAMPSHIRE			
CONCORD	1506	3468	2786
MT WASHINGTON OBS	2017	6680	5884
NEW JERSEY			
ATLANTIC CITY	1075	2344	1794
ATLANTIC CITY L	936	2039	1566
NEWARK	1107	2293	1787
TRENTON U	1054	2228	1785
NEW MEXICO			
ALBUQUERQUE	985	2113	1733
CLAYTON	884	2253	2005
ROSWELL	789	1745	1552
NEW YORK			
ALBANY	1345	3047	2562
BINGHAMTON	1382	3382	2721
BUFFALO	1328	3052	2508
NEW YORK U	1082	2195	1681
NEW YORK KENNEDY	1076	2234	1777
NEW YORK LA GUARDIA	1061	2077	1696
ROCHESTER	1279	2907	2432
SYRACUSE	1303	2976	2405
NORTH CAROLINA			
ASHEVILLE	884	2089	1695
CAPE HATTERAS R	566	1150	889
CHARLOTTE	799	1724	1280
GREENSBORO	860	1937	1521
RALEIGH	857	1834	1386
WILMINGTON	569	1196	911
NORTH DAKOTA			
BISMARCK	1551	3639	3483
FARGO	1797	4081	3542
WILLISTON	1563	3742	3574
OHIO			
AKRON	1272	3026	2328
CINCINNATI ABBE OB	1082	2384	1843
CLEVELAND	1286	2912	2253
COLUMBUS	1241	2847	2188
DAYTON U	1191	2758	2130
MANSFIELD	1369	3230	2171
TOLEDO	1393	3161	2410
YOUNGSTOWN	1321	3134	2396
OKLAHOMA			
OKLAHOMA CITY	805	1759	1409
TULSA	858	1839	1402
OREGON			
ASTORIA	660	1874	2136
BURNS U	1083	2641	2899
EUGENE	840	1804	1888
MEDFORD	1023	2085	1972
PENDLETON	896	1996	2116
PORTLAND	783	1741	1914
SALEM	807	1971	1923
SEXTON SUMMIT R	644	1836	2426
PENNSYLVANIA			
ALLENTOWN	1174	2557	2179
ERIE	1269	2941	2483
HARRISBURG	1075	2329	1984
PHILADELPHIA	1069	2243	1775
PITTSBURGH	1268	3041	2274
PITTSBURGH U	1171	2657	1972
SCRANTON	1297	2838	2371
WILLIAMSPORT	1201	2667	2263
RHODE ISLAND			
BLOCK ISLAND	1048	2359	1894
PROVIDENCE	1219	2675	2143
SOUTH CAROLINA			
CHARLESTON	501	1078	832
CHARLESTON U	452	1243	696
COLUMBIA	645	1376	1042
GRNVLLE-SPRTNBRG	773	1686	1259
SOUTH DAKOTA			
ABERDEEN	1557	3552	3307
HURON	1514	3583	3071
RAPID CITY	1177	2915	2777
SIOUX FALLS	1495	3395	3010
TENNESSEE			
BRISTOL	973	2204	171
CHATTANOOGA	851	1792	141
KNOXVILLE	845	1835	138
MEMPHIS	708	1520	126
NASHVILLE	872	1970	145
OAK RIDGE	936	2123	157
TEXAS			
ABILENE	690	1552	100
AMARILLO	846	2159	160
AUSTIN	506	1078	64
BROWNSVILLE	256	454	18
CORPUS CHRISTI	311	623	30
DALLAS FT WORTH	614	1287	87
DEL RIO	481	956	61
EL PASO	709	1531	113
GALVESTON	373	782	37
HOUSTON INTERCON	484	1055	51
LUBBOCK	760	1788	1391
MIDLAND	635	1410	102
PORT ARTHUR	439	963	561
SAN ANGELO	595	1336	88
SAN ANTONIO	461	1003	584
VICTORIA	398	834	42
WACO	596	1247	76
WICHITA FALLS	731	1555	1106
UTAH			
MILFORD	1183	2623	2529
SALT LAKE CITY	1096	2261	2365
VERMONT			
BURLINGTON	1505	3455	2916
VIRGINIA			
LYNCHBURG	947	2072	1650
NORFOLK	726	1537	1256
RICHMOND	869	1877	1510
ROANOKE	945	2182	1672
WALLOPS ISLAND	834	1827	1470
WASHINGTON			
OLYMPIA	798	2325	2278
QUILLAYUTE	647	2253	2461
SEATTLE	635	1672	1896
SEATTLE-TACOMA	625	1599	2101
SPOKANE	1089	2681	2798
STAMPEDE PASS R	1035	3535	3936
WALLA WALLA U	896	1932	1956
YAKIMA	1081	2462	2509
WEST VIRGINIA			
BECKLEY	1094	2798	2226
CHARLESTON	1047	2429	1794
ELKINS	1159	2911	2375
HUNTINGTON	1003	2305	1795
PARKERSBURG U	1104	2478	1841
WISCONSIN			
GREEN BAY	1730	3862	3051
LA CROSSE	1613	3534	2805
MADISON	1602	3640	2945
MILWAUKEE	1504	3296	2751
WYOMING			
CASPER	1133	2916	2931
CHEYENNE	1059	2939	2803
LANDER	1220	3009	3119
SHERIDAN	1154	3006	3010

MONTHLY AND SEASONAL COOLING DEGREE DAYS

(Base 65°F)

1976

State and Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total for Season	Normals Jan. - Dec.
ALABAMA														
BIRMINGHAM	0	8	25	27	48	290	418	376	219	15	1	0	1427	1768
HUNTSVILLE	0	3	14	8	43	257	380	360	142	6	0	0	1215	1608
MOBILE	0	17	74	160	245	454	579	504	321	48	4	0	2405	2577
MONTGOMERY	0	3	23	34	75	367	482	436	287	23	0	0	1730	2238
ALASKA														
ANCHORAGE	0	0	0	0	0	0	3	0	0	0	0	0	3	0
ANNETTE	0	0	0	0	0	0	16	1	0	0	0	0	17	14
BARROW	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BARTER ISLAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BETHEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BETTLES	0	0	0	0	0	2	20	5	0	0	0	0	27	17
BIG DELTA	0	0	0	0	0	4	20	12	0	0	0	0	36	34
COLD BAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FAIRBANKS	0	0	0	0	0	2	23	14	0	0	0	0	39	52
GULKANA	0	0	0	0	0	0	8	0	0	0	0	0	8	9
HOMER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNEAU	0	0	0	0	0	0	3	3	0	0	0	0	6	0
KING SALMON	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KODIAK	0	0	0	0	0	0	5	0	0	0	0	0	5	0
KOTZEBUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MC GRATH	0	0	0	0	0	0	2	0	0	0	0	0	2	14
NOME	0	0	0	0	0	0	1	0	0	0	0	0	1	0
ST. PAUL ISLAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMIT	0	0	0	0	0	0	0	0	0					
TALKEETNA	0	0	0	0	0	1	4	0	0	0	0	0	5	6
UNALAKLEET	0	0	0	0	0	0	2	0	0	0	0	0	2	0
VALDEZ	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YAKUTAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARIZONA														
FLAGSTAFF	0	0	0	0	0	15	70	13	0	0	0	0	98	140
PHOENIX	6	4	34	169	495	692	833	804	548	389	91	0	3965	3508
TUCSON	2	0	14	89	306	557	597	636	386	139	34	0	2760	2844
WINSLOW	0	0	0	0	45	209	413	298	84	0	0	0	1049	1203
YUMA	4	6	42	138	476	668	830	800	549	324	90	0	3927	4195
ARKANSAS														
FORT SMITH	0	4	9	33	54	239	435	388	187	16	0	0	1365	2022
LITTLE ROCK	0	5	27	37	65	292	480	434	220	42	0	0	1602	1965
CALIFORNIA														
BAKERSFIELD	0	6	15	34	326	447	649	445	406	204	32	0	2558	2179
BISHOP	0	0	0	0	57	157	361	167	82	3	0	0	827	1037
BLUE CANYON	0	0	0	0	12	43	123	50	57	9	2	0	296	302
EUREKA U	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FRESNO	0	0	2	16	162	254	456	246	228	73	0	0	1437	1671
LONG BEACH	34	0	17	8	56	215	271	295	286	232	85	0	1499	985
LOS ANGELES	29	2	7	1	1	111	163	141	167	143	96	3	864	615
LOS ANGELES U	22	3	20	10	32	203	245	212	233	185	123	2	1290	1185
MT SHASTA R	0	0	0	0	1	17	137	38	39	0	0	0	232	286
OAKLAND	0	0	0	0	21	75	6	29	35	32	0	0	198	128
RED BLUFF	0	0	0	3	218	347	570	375	357	139	9	0	2018	1904
SACRAMENTO	0	0	1	8	167	278	363	270	213	83	8	0	1391	1159
SANDBERG R	0	0	0	0	36	129	237	131	82	26	5	0	646	800
SAN DIEGO	14	0	10	3	31	147	196	240	269	200	102	0	1212	722
SAN FRANCISCO	0	0	0	0	21	88	4	23	33	23	0	0	192	108
SAN FRANCISCO U	0	0	0	0	16	82	0	15	37	41	15	0	206	39
SANTA MARIA	0	0	0	0	7	72	13	25	40	18	6	0	181	84
STOCKTON	0	0	0	0	81	248	392	288	273	121	0	0	1403	1259
COLORADO														
ALAMOSA	0	0	0	0	0	1	25	0	0	0	0	0	26	88
COLORADO SPRINGS	0	0	0	0	0	66	227	114	28	0	0	0	435	461
DENVER	0	0	0	0	3	112	324	176	52	0	0	0	667	625
GRAND JUNCTION	0	0	0	0	32	195	460	324	103	0	0	0	1114	1140
PUEBLO	0	0	0	0	9	163	365	239	76	0	0	0	852	981
CONNECTICUT														
BRIDGEPORT	0	0	0	10	6	205	204	266	78	6	0	0	775	735
HARTFORD	0	0	0	47	18	257	236	208	47	6	0	0	819	584
DELAWARE														
WILMINGTON	0	0	0	37	25	260	291	278	106	6	0	0	1003	992
DIST. OF COLUMBIA														
WASHINGTON DULLES	0	0	0	28	24	208	232	215	65	7	0	0	779	940
WASHINGTON NATIONAL	0	4	1	92	86	383	424	370	379	15	0	0	1554	1415
FLORIDA														
APPALACHICOLA U	0	6	46	72	207	380	498	472	357	64	10	2	2114	2663
DAYTONA BEACH	12	36	136	104	264	378	497	471	406	186	39	40	2569	2919
FORT MYERS	42	86	213	193	386	423	521	531	436	246	122	66	3265	3711
JACKSONVILLE	0	16	85	60	213	350	528	462	360	85	13	7	2179	2596
KEY WEST	133	175	382	343	487	476	611	598	565	453	289	198	4710	4888
LAKELAND U	23	82	226	219	367	431	551	535	458	201	67	39	3199	3898
MIAMI	92	144	336	309	424	429	569	530	470	361	209	141	4014	4038
ORLANDO	18	75	194	196	374	449	549	529	474	247	65	49	3219	3226
PENSACOLA	3	13	59	147	201	394	490	480	353	66	4	1	2711	2695
TALLAHASSEE	0	4	51	94	241	395	537	526	367	57	14	6	2292	2503
TAMPA	17	63	199	175	348	424	525	517	440	202	63	45	3018	3366
WEST PALM BEACH	53	97	251	237	393	404	507	509	457	334	193	105	3540	3786
GEORGIA														
ATHENS	0	2	11	50	89	282	410	376	177	18	0	0	1415	1762
ATLANTA	0	1	8	30	67	273	359	346	159	11	0	0	1254	1589
AUGUSTA	0	0	30	51	127	320	482	419	228	34	0	0	1691	1995
COLUMBUS	0	5	25	63	119	351	493	460	282	36	0	0	1834	2143
MACON	0	4	28	70	148	347	514	457	297	63	0	0	1928	2394
ROME	0	0	7	20	72	260	403	386	173	15	0	0	1338	1615
SAVANNAH	0	12	68	53	164	331	526	416	306	70	7	1	1954	2317

MONTHLY AND SEASONAL COOLING DEGREE DAYS

(Base 65°F)

1976

State and Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total for Season	Normals Jan. - Dec.
ALASKA														
[illegible]	201	186	214	288	185	168	302	355	384	357	291	261	3276	3066
[illegible]	284	279	275	311	393	402	464	485	479	446	315	325	4395	4221
[illegible]	196	196	248	288	315	319	467	456	424	411	300	309	3890	3732
[illegible]	282	284	344	388	484	468	470	458	412	372	271	289	4159	3719
IDAHO														
BOISE	0	0	1	4	39	66	263	130	58	2	0	0	535	714
LEWISTON	0	0	1	8	15	67	288	185	169	5	0	0	687	657
POCATELLO	0	0	1	1	1	46	227	70	28	0	0	0	372	437
ILLINOIS														
PEORIA	0	1	13	66	74	196	471	341	178	27	0	0	1485	1806
CHICAGO O'HARE	0	0	0	21	6	178	286	196	56	8	0	0	766	664
CHICAGO MIDWAY	0	0	2	44	8	221	317	218	81	20	0	0	906	965
QUINCY	0	0	1	26	41	175	341	221	72	13	0	0	860	893
PEORIA	0	0	1	29	54	174	328	183	62	14	0	0	890	968
ROCKFORD	0	0	0	21	3	87	270	159	31	5	0	0	626	744
SPRINGFIELD	0	0	3	48	94	188	393	214	98	23	0	0	1021	1116
INDIANA														
EVANSVILLE	0	0	6	47	40	158	379	274	98	10	0	0	1112	1364
FORT WAYNE	0	0	4	26	9	193	254	140	36	4	0	0	664	748
INDIANAPOLIS	0	0	0	21	15	198	284	245	43	4	0	0	770	974
SOUTH BEND	0	0	1	37	13	192	249	152	36	4	0	0	682	695
IOWA														
BURLINGTON	0	0	0	19	17	158	348	190	62	10	0	0	804	994
DES MOINES	0	0	0	19	36	203	385	283	104	20	0	0	1050	928
DUBUQUE	0	0	0	9	3	112	266	144	29	8	0	0	571	606
SIOUX CITY	0	0	0	13	26	181	359	294	89	7	0	0	969	932
WATERLOO	0	0	0	10	10	131	282	175	55	5	0	0	668	675
KANSAS														
CONCORDIA	0	0	0	10	29	246	458	443	182	32	0	0	1400	1302
DODGE CITY	0	0	4	19	32	286	484	466	205	35	0	0	1531	1411
GOODLAND	0	0	0	6	22	149	357	275	64	1	0	0	868	925
TOPEKA	0	0	1	34	40	242	417	376	171	20	0	0	1394	1361
WICHITA	0	0	2	19	32	270	420	464	187	23	0	0	1417	1673
KENTUCKY														
COVINGTON	0	0	4	59	28	207	276	202	39	5	0	0	822	1080
LEXINGTON	0	0	3	31	26	193	257	205	46	4	0	0	770	1197
LOUISVILLE	0	0	21	47	51	243	372	294	92	10	0	0	1130	1268
LOUISIANA														
ALEXANDRIA	1	22	63	112	160	399	516	491	336	45	3	0	2148	2193
BATON ROUGE	2	25	82	143	195	394	506	501	367	51	2	0	2248	2585
LAKE CHARLES	0	23	70	127	234	400	490	503	383	47	4	0	2281	2739
NEW ORLEANS	4	18	100	132	234	404	509	518	390	68	13	0	2390	2706
SHREVEPORT	2	26	58	116	112	326	428	432	288	48	7	0	1843	2538
MAINE														
CARIBOU	0	0	0	0	6	104	52	65	4	0	0	0	231	128
PORTLAND	0	0	0	0	2	128	80	93	5	0	0	0	308	252
MARYLAND														
BALTIMORE	0	1	0	58	51	315	317	284	114	9	0	0	1149	1108
MASSACHUSETTS														
BLUE HILL OBSV	0	0	0	46	13	184	171	150	30	3	0	0	599	457
BOSTON	0	0	0	43	25	276	251	231	61	8	0	0	895	661
WORCESTER	0	0	0	37	7	154	110	119	16	0	0	0	443	387
MICHIGAN														
ALPENA	0	0	0	18	0	96	113	112	36	0	0	0	375	208
DETROIT	0	0	0	37	27	247	322	231	98	5	0	0	967	743
DETROIT METRO	0	0	0	30	10	182	246	182	53	3	0	0	706	654
FLINT	0	0	0	20	5	155	196	140	41	3	0	0	560	438
GRAND RAPIDS	0	0	0	27	4	158	239	161	49	0	0	0	638	575
HOUGHTON LAKE	0	0	0	13	0	92	93	86	24	0	0	0	308	250
LANSING	0	0	0	25	4	162	198	121	45	1	0	0	556	535
MARQUETTE U	0	0	0	3	0	75	92	166	53	4	0	0	393	216
MUSKEGON	0	0	0	15	2	113	166	118	21	1	0	0	436	469
SAULT STE MARIE	0	0	0	3	2	29	33	88	12	0	0	0	167	139
MINNESOTA														
DULUTH	0	0	0	0	0	53	75	117	26	0	0	0	271	176
INTERNATIONAL FALLS	0	0	0	0	0	80	76	98	27	0	0	0	281	176
MINNEAPOLIS	0	0	1	14	14	223	351	269	72	7	0	0	950	585
ROCHESTER	0	0	0	9	5	126	278	183	36	4	0	0	641	474
ST CLOUD	0	0	0	5	0	122	193	197	40	0	0	0	557	426
MISSISSIPPI														
JACKSON	0	17	52	76	116	357	497	481	300	47	0	0	1943	2321
MERIDIAN	0	8	33	36	57	268	409	389	220	18	0	0	1438	2231
MISSOURI														
COLUMBIA REGIONAL	0	0	0	22	21	160	409	326	130	22	0	0	1090	1269
KANSAS CITY	0	0	0	22	29	199	444	399	169	34	0	0	1296	1420
ST JOSEPH	0	0	0	27	30	224	414	329	136	20	0	0	1180	1334
ST LOUIS	0	0	0	38	34	239	458	298	129	25	0	0	1229	1475
SPRINGFIELD	0	0	7	20	28	173	367	305	156	29	0	0	1085	1382
MONTANA														
BILLINGS	0	0	0	0	1	21	276	200	49	0	0	0	547	498
GLASGOW	0	0	0	0	9	41	180	172	35	0	0	0	437	438
GREAT FALLS	0	0	0	0	6	51	174	116	37	5	0	0	389	339
HAVRE	0	0	0	0	2	36	220	193	42	3	0	0	496	395
HELENA	0	0	0	0	0	14	102	45	10	0	0	0	171	256
KALISPELL	0	0	0	0	0	13	59	44	3	0	0	0	121	117
MILES CITY	0	0	0	0	17	106	365	292	84	4	0	0	868	752
MISSOULA	0	0	0	0	0	21	89	41	7	0	0	0	158	188

MONTHLY AND SEASONAL COOLING DEGREE DAYS

(Base [illegible])

State and Station	[illegible]	Feb.	Mar.	Apr.	May	[illegible]	[illegible]	Aug.	Sept.	[illegible]	[illegible]	Dec.	Total [illegible] Season	Normals Jan. - Dec.
[illegible]														
[illegible]		0	[illegible]	[illegible]	29	[illegible]	387	[illegible]	111	12	0	[illegible]	1088	[illegible]
[illegible]	[illegible]	0	[illegible]	15	26	[illegible]	413	[illegible]	[illegible]	10	[illegible]	[illegible]	1178	1148
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	32	200	387	324	100	[illegible]	[illegible]	[illegible]	1060	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	62	247	[illegible]	27	0	[illegible]	[illegible]	[illegible]	802
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	34	[illegible]	440	358	139	17	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0	0	[illegible]	[illegible]	146	[illegible]	240	66	1	[illegible]	[illegible]	830	666
[illegible]	0	[illegible]	1	[illegible]	[illegible]	157	[illegible]	[illegible]	81	2	0	[illegible]	[illegible]	736
[illegible]														
[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	36	[illegible]	0	[illegible]	228	342
[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	103	[illegible]	4	[illegible]	[illegible]	[illegible]	127	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	57	404	[illegible]	687	[illegible]	[illegible]	93	[illegible]	[illegible]	[illegible]	2946
[illegible]	[illegible]	0	[illegible]	[illegible]	0	[illegible]	144	[illegible]	33	[illegible]	0	[illegible]	736	329
[illegible]	0	0	[illegible]	[illegible]	[illegible]	68	287	71	[illegible]	[illegible]	[illegible]	[illegible]	489	[illegible]
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	184	100	99	[illegible]	[illegible]	0	[illegible]	419	349
[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0	0	[illegible]	[illegible]	[illegible]	0
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	0	[illegible]	13	15	201	[illegible]	221	74	[illegible]	0	[illegible]	765	864
[illegible]	0	0	[illegible]	14	2	160	[illegible]	210	[illegible]	2	0	[illegible]	676	[illegible]
[illegible]	0	0	[illegible]	50	[illegible]	281	317	305	110	[illegible]	0	[illegible]	[illegible]	[illegible]
[illegible]	0	0	[illegible]	[illegible]	[illegible]	283	292	281	[illegible]	6	[illegible]	[illegible]	1033	[illegible]
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	260	382	319	137	5	0	[illegible]	1141	1316
[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	152	244	[illegible]	81	3	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0	[illegible]	57	[illegible]	436	[illegible]	478	211	9	[illegible]	[illegible]	1786	1560
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0	[illegible]	19	[illegible]	[illegible]	120	120	22	0	0	[illegible]	476	574
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	119	61	82	15	0	[illegible]	0	301	369
[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	149	109	119	40	[illegible]	0	[illegible]	[illegible]	[illegible]
[illegible]	0	[illegible]	[illegible]	65	24	[illegible]	[illegible]	[illegible]	103	5	0	[illegible]	1076	1068
[illegible]	0	[illegible]	[illegible]	[illegible]	5	187	250	[illegible]	[illegible]	2	0	[illegible]	786	861
[illegible]	[illegible]	0	[illegible]	[illegible]	31	[illegible]	[illegible]	322	119	[illegible]	[illegible]	[illegible]	1158	1048
[illegible]	0	[illegible]	0	24	[illegible]	189	150	[illegible]	55	1	0	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0	[illegible]	16	2	141	84	[illegible]	31	[illegible]	0	[illegible]	357	[illegible]
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	0	0	[illegible]	5	135	[illegible]	170	35	2	0	[illegible]	545	872
[illegible]	0	0	[illegible]	48	127	[illegible]	401	344	214	[illegible]	[illegible]	[illegible]	1466	[illegible]
[illegible]	[illegible]	2	[illegible]	43	[illegible]	[illegible]	374	351	146	14	[illegible]	[illegible]	1255	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	71	55	212	344	[illegible]	82	9	[illegible]	[illegible]	[illegible]	1341
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	116	304	428	330	157	19	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	94	[illegible]	336	[illegible]	[illegible]	277	39	2	[illegible]	[illegible]	[illegible]
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	137	212	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	663	487
[illegible]	0	[illegible]	0	[illegible]	[illegible]	164	228	283	88	[illegible]	[illegible]	0	766	473
[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	37	1	[illegible]	[illegible]	[illegible]	422
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14	139	132	101	22	[illegible]	[illegible]	[illegible]	424	634
[illegible]	[illegible]	[illegible]	13	[illegible]	41	204	306	221	69	4	[illegible]	[illegible]	908	1188
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14	167	214	[illegible]	39	2	[illegible]	[illegible]	600	613
[illegible]	0	[illegible]	3	[illegible]	23	174	223	135	25	2	[illegible]	[illegible]	[illegible]	809
[illegible]	0	0	2	[illegible]	27	[illegible]	259	[illegible]	28	1	[illegible]	[illegible]	[illegible]	936
[illegible]	[illegible]	[illegible]	[illegible]	21	12	117	145	91	16	[illegible]	[illegible]	[illegible]	402	[illegible]
[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	230	137	[illegible]	2	[illegible]	[illegible]	599	[illegible]
[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	145	137	100	[illegible]	0	0	[illegible]	461	[illegible]
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	23	[illegible]	[illegible]	300	[illegible]	[illegible]	253	[illegible]	[illegible]	[illegible]	[illegible]	1876
[illegible]	[illegible]	5	7	[illegible]	[illegible]	307	[illegible]	[illegible]	256	46	0	[illegible]	[illegible]	[illegible]
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	[illegible]	0	0	0	3	4	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0	0	0	1	[illegible]	150	37	[illegible]	0	[illegible]	[illegible]	227	[illegible]
[illegible]	[illegible]	0	[illegible]	0	[illegible]	7	101	92	30	3	0	[illegible]	[illegible]	[illegible]
[illegible]	0	0	[illegible]	[illegible]	[illegible]	34	215	110	66	5	0	[illegible]	436	562
[illegible]	0	[illegible]	[illegible]	0	20	53	270	129	103	3	[illegible]	[illegible]	578	[illegible]
[illegible]	0	0	[illegible]	[illegible]	[illegible]	23	[illegible]	66	30	[illegible]	0	[illegible]	216	[illegible]
[illegible]	0	0	0	[illegible]	[illegible]	[illegible]	6	59	48	16	[illegible]	[illegible]	132	[illegible]
[illegible]	0	0	[illegible]	[illegible]	[illegible]	13	61	47	29	13	0	[illegible]	[illegible]	137
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	350	345	392	411	[illegible]	[illegible]	454	444	414	456	421	398	[illegible]	[illegible]
[illegible]	348	328	315	345	404	426	446	478	473	476	407	405	4848	5086
[illegible]	330	487	515	[illegible]	549	517	533	495	[illegible]	547	543	523	6233	[illegible]
[illegible]	483	488	[illegible]	496	507	491	[illegible]	[illegible]	[illegible]	521	507	518	6038	6164
[illegible]	451	424	459	442	470	460	[illegible]	[illegible]	491	[illegible]	514	465	477	[illegible]	5904
[illegible]	462	437	492	470	[illegible]	422	[illegible]	427	435	[illegible]	496	483	477	5471	[illegible]
[illegible]	522	445	507	459	477	470	479	464	444	[illegible]	481	498	5745	5652
[illegible]	507	466	[illegible]	483	500	483	512	493	469	524	505	524	[illegible]	[illegible]
[illegible]	388	331	391	407	450	525	545	554	542	549	486	445	[illegible]	5455
[illegible]	449	437	469	450	[illegible]	454	453	[illegible]	[illegible]	508	474	472	5562	5916
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	0	[illegible]	37	20	262	214	203	59	2	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	0	[illegible]	[illegible]	5	[illegible]	[illegible]	110	[illegible]	2	[illegible]	[illegible]	[illegible]	373
[illegible]	0	0	[illegible]	47	82	283	233	240	73	[illegible]	[illegible]	[illegible]	901	[illegible]
[illegible]	0	0	0	64	56	[illegible]	326	315	115	7	0	[illegible]	1211	[illegible]
[illegible]	0	0	1	[illegible]	14	[illegible]	99	73	12	0	0	[illegible]	358	647
[illegible]	0	0	0	46	16	198	145	159	37	0	[illegible]	[illegible]	601	[illegible]
[illegible]	0	0	[illegible]	35	20	[illegible]	[illegible]	177	47	0	[illegible]	[illegible]	675	[illegible]
[illegible]														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	0	0	18	10	166	[illegible]	138	21	[illegible]	[illegible]	0	[illegible]	[illegible]
[illegible]	0	0	0	40	13	[illegible]	169	183	33	3	[illegible]	[illegible]	[illegible]	[illegible]

MONTHLY AND SEASONAL COOLING DEGREE DAYS

(Base 65°F)

1976

State and Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total for Season	Normals Jan.- Dec.
SOUTH CAROLINA														
CHARLESTON	2	9	73	70	187	329	502	384	274	52	2	1	1885	2078
CHARLESTON U	1	13	79	119	234	358	540	430	320	0	0	1	2095	2354
COLUMBIA	2	10	58	87	160	295	460	442	231	30	0	0	1775	2087
GRNVLLE-SPRTNBRG	0	2	11	22	40	213	387	322	126	12	0	0	1135	1573
SOUTH DAKOTA														
ABERDEEN	0	0	0	0	5	193	322	345	85	1	0	0	951	566
HURON	0	0	0	0	2	170	313	328	75	3	0	0	891	711
RAPID CITY	0	0	0	0	4	83	251	248	87	3	0	0	676	661
SIOUX FALLS	0	0	0	2	24	226	370	324	85	[illegible]	[illegible]	0	1040	719
TENNESSEE														
BRISTOL	0	0	2	14	24	185	262	212	54	0	[illegible]	0	753	1107
CHATTANOOGA	0	0	1	19	49	241	342	363	142	[illegible]	0	0	1165	1636
KNOXVILLE	0	[illegible]	1	26	48	273	356	314	107	5	0	0	1133	1569
MEMPHIS	0	7	44	64	84	349	519	438	247	48	[illegible]	0	1800	2029
NASHVILLE	0	1	28	36	68	257	363	299	92	10	[illegible]	0	1154	1694
OAK RIDGE	0	1	0	[illegible]	17	187	273	234	53	0	0	0	771	1367
TEXAS														
ABILENE	0	21	40	67	145	424	401	521	275	31	[illegible]	0	1925	2466
AMARILLO	0	0	0	13	32	223	312	318	110	5	[illegible]	0	1013	1433
AUSTIN	0	57	85	115	186	451	479	577	401	61	[illegible]	0	2418	2908
BROWNSVILLE	41	97	216	283	343	507	511	547	509	190	59	24	3327	3874
CORPUS CHRISTI	25	84	170	265	299	505	510	563	498	136	31	3	3089	3474
DALLAS FT WORTH	0	32	59	52	138	421	537	602	338	72	0	0	2251	2587
DEL RIO	0	74	130	168	255	534	410	521	419	73	[illegible]	0	2587	3363
EL PASO	0	0	4	71	170	441	418	434	179	18	0	0	1735	2098
GALVESTON	0	6	40	156	259	457	516	550	445	113	7	[illegible]	2549	3004
HOUSTON INTERCON	5	43	75	110	182	408	490	520	341	42	[illegible]	0	2225	2889
LUBBOCK	0	1	0	45	93	369	317	406	187	4	0	0	1422	1647
MIDLAND	0	10	21	68	155	398	344	434	219	22	0	0	1671	2250
PORT ARTHUR	2	29	66	133	226	418	512	512	404	61	[illegible]	0	2371	2798
SAN ANGELO	0	12	29	66	155	449	354	491	272	27	0	0	1855	2702
SAN ANTONIO	3	42	113	136	202	451	467	521	383	45	0	0	2383	2994
VICTORIA	7	54	107	186	263	478	505	550	414	88	16	1	2669	3140
WACO	0	33	72	81	193	469	542	644	395	73	5	0	2507	2863
WICHITA FALLS	0	21	39	54	124	395	500	601	282	44	0	0	2060	2611
UTAH														
MILFORD	0	[illegible]	0	0	0	55	306	121	30	0	0	0	512	688
SALT LAKE CITY	0	0	0	0	34	151	431	237	87	3	[illegible]	0	943	927
WENDOVER	0	0	0	0	43	198	509	264	108	0	0			[illegible]
VERMONT														
BURLINGTON	0	0	0	24	19	185	135	97	23	0	[illegible]	0	483	396
VIRGINIA														
LYNCHBURG	0	0	3	57	37	190	289	259	80	13	[illegible]	0	928	1100
NORFOLK	1	13	11	102	110	337	417	347	193	27	0	0	1558	1441
RICHMOND	0	8	[illegible]	99	91	307	389	337	133	12	0	0	1385	1353
ROANOKE	0	0	8	53	49	179	285	230	58	1	0	0	863	1030
WALLOPS ISLAND	0	0	0	16	17	194	288	274	146	19	0	0	954	1107
WASHINGTON														
OLYMPIA	0	0	0	0	0	2	9	3	[illegible]	[illegible]	0	0	14	101
QUILLAYUTE	0	[illegible]	0	0	0	0	0	[illegible]	0	0	0	0	0	[illegible]
SEATTLE	0	0	0	4	1	6	41	14	7	0	0	0	73	183
SEATTLE-TACOMA	0	0	0	8	4	14	59	29	15	0	[illegible]	0	129	129
SPOKANE	0	0	0	0	0	24	143	93	33	0	[illegible]	0	293	388
STAMPEDE PASS R	0	0	0	0	0	0	[illegible]	12	0	0	0	0	14	16
WALLA WALLA U	0	0	0	0	14	64	303	182	130	5	[illegible]	0	698	862
YAKIMA	0	[illegible]	[illegible]	0	[illegible]	27	156	103	50	0	[illegible]	0	336	479
WEST INDIES														
SAN JUAN P.R.	357	342	375	413	485	506	566	579	557	548	485	419	5632	4982
WEST VIRGINIA														
BECKLEY	0	0	2	38	7	90	127	86	6	0	0	0	356	490
CHARLESTON	0	1	17	58	54	218	238	175	39	1	0	0	801	1055
ELKINS	0	0	[illegible]	[illegible]	16	105	117	73	[illegible]	[illegible]	0	0	314	389
HUNTINGTON	0	1	24	51	59	224	244	228	32	4	0	0	867	1098
PARKERSBURG U	0	[illegible]	16	49	39	180	229	184	41	3	0	0	741	1045
WISCONSIN														
GREEN BAY	0	0	0	8	1	129	219	122	41	0	0	0	520	386
LA CROSSE	0	0	0	[illegible]	7	167	304	228	60	10	[illegible]	0	781	695
MADISON	0	0	0	14	[illegible]	136	270	165	34	2	0	0	627	460
MILWAUKEE	0	0	0	24	5	144	247	181	62	4	0	0	667	450
WYOMING														
CASPER	[illegible]	0	0	[illegible]	0	29	250	127	33	0	0	0	439	458
CHEYENNE	0	0	0	0	0	7	145	50	15	0	0	0	217	327
LANDER	0	0	0	[illegible]	1	41	238	84	30	0	0	0	394	383
SHERIDAN	0	0	0	[illegible]	0	28	211	115	28	0	0	0	382	446

STORM SUMMARY

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS				ICE STORMS							
	NUMBER	DAYS	DEATHS	INJURIES	DAMAGE	DEATHS	INJURIES	DAMAGE		DEATHS	INJURIES	DAMAGE		DEATHS	INJURIES	DAMAGE		DEATHS	INJURIES	DAMAGE		DEATHS	INJURIES	DAMAGE		DEATHS	INJURIES	DAMAGE	
								PROP.	CROP			PROP.	CROP			PROP.	CROP			PROP.	CROP			PROP.	CROP			PROP.	CROP
Alabama	•																												
Alaska	•																												
Arizona	•																												
Arkansas	•																												
California																													
Colorado	•																												
Connecticut											5								1										
Delaware	•																												
Florida		1	1				3																						
Georgia	•																												
Hawaii	•																												
Idaho	•																												
Illinois	•																												
Indiana	•																												
Iowa	•																												
Kansas	•																												
Kentucky	•																												
Louisiana	•																												
Maine											2																		
Maryland & DC											1																		3
Massachusetts											1			1	3				3				20	1					
Michigan	•																												
Minnesota	•																												
Mississippi																													1
Missouri	•																												
Montana	•																												
Nebraska											1	1																	
Nevada	•																												
New Hampshire											5													2					
New Jersey																										1	2		1
New Mexico	•																												
New York																													
North Carolina	•																												
North Dakota	•																												
Ohio	•																												
Oklahoma	•																												
Oregon	•																												
Pacific																													1
Pennsylvania																			2										
Puerto Rico	•																												
Rhode Island											1								1										
South Carolina	•																												
South Dakota																													
Tennessee	•																												
Texas																												1	
Utah	•																												
Vermont	•																												
Virginia	•																												
Virgin Islands	•																												
Washington										1	3																		
West Virginia	•																												
Wisconsin	•																												
Wyoming	•																												

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

DECEMBER 1976

Herbert J. Thompson, Office of Hydrology

There was no major flooding during December. Significant flooding occurred on the lower Broad, Congaree, and Santee Rivers in South Carolina and minor flooding on several other streams in the Southeast. In Texas, moderate flooding occurred on the Sulphur, Navasota, Navidad, Lavaca, and the lower Guadalupe and Nueces Rivers. South Texas reported what was probably the wettest fall and early winter moisture conditions in the history of the area. Minor flooding occurred on several east Texas streams.

Flooding from ice jams was reported in the Buffalo, NY, area and on the Lamoille River in Vermont, where significant damage occurred.

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
GREAT LAKES - ST. LAWRENCE DRAINAGE		
Ice jams developed on Buffalo and Cazenovia Creeks in the vicinity of Buffalo, NY, on the 20th. No major damage occurred due to the local extent of the flooding, although Buffalo Creek reached the second highest stage of record at Gardenville, NY.	0	N.A.
A severe ice jam on the Lamoille River caused flooding in the town of Hardwick, VT, on the 16th. Eight homes and seven business establishments were evacuated and a highway was flooded.	0	N.A.
ATLANTIC SLOPE DRAINAGE		
Above normal rainfall occurred over the south Atlantic Slope Drainage in the Carolinas and Georgia. Monthly totals for December were 200% of normal over most of South Carolina. Amounts of an inch or more fell on the 7th, 11th-12th, 16th, and 26th. The frequent, moderate rainfall caused high stream levels with one or more periods of flooding on a number of streams. The Broad River at Blair, SC, the Santee at Jamestown, SC, and the Congaree near St. Mathews crested about 6 feet over flood stage at least once during the month. The Pee Dee River crested near 4 feet over flood stage at Pee Dee, SC. Minor flooding occurred on the Cape Fear, Rocky, Lumber, Little Pee Dee, South Fork, Catawba, Edisto, lower Savannah, and Ogeechee Rivers. Logging operations were disrupted and soybean crops could not be harvested. Losses were estimated at $30,000 in the Broad River Basin, $25,000 on the lower Santee, and $15,000 in the Pee Dee Basin. Flooding continued into January on several streams.	0	70
EAST GULF OF MEXICO DRAINAGE		
Flooding from the heavy rains of late November continued into early December on the Appalachicola River at Blountstown, FL, and the Choctawhatchee River (see November summary). Three additional periods of minor flooding occurred at Blountstown during December. Backwater from the Suwanee River caused flooding on the lower Santa Fe River affecting a housing development called Three Rivers Estates about 10 miles above the mouth.	0	N.A.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

DECEMBER 1976

FLOOD EVENT	Lives Lost	Preliminary Estimate of Property Damage (thousands of dollars)
RED BASIN		
Extensive lowland flooding occurred along the Sulphur River as a result of rains averaging about 2 inches over the basin during the first week of December. Crests 2.5 and 2.9 feet over flood stage were reported at Hagansport and Naples, TX, respectively. Such flooding does not result in significant losses at this season. The severe cold weather during December necessitated continuous power production at Denison Dam. The runoff from near normal rainfall was not sufficient to replenish the heavy draw down and the level in Lake Texoma dropped 8 feet below the normal power or conservation pool level of 617.00 feet by the end of the month.	0	N.A.
WEST GULF OF MEXICO DRAINAGE		
In south Texas rainfall was well above normal. Soil moisture conditions were unusually wet. Long time residents believe it is the wettest late fall they have observed or heard of in the past 125 years. Moderate amounts of rain, generally less than an inch, fell almost daily during December. Flooding continued from November on the lower Nueces and Guadalupe Rivers. On the Nueces River maximum flooding occurred at Mathis Bridge with a crest more than 7 feet over flood stage. The Guadalupe River crested about 7 feet over flood stage from Cuero down to Dupont where flooding lasted the entire month and into January. The Navidad and Lavaca Rivers crested 3 to 4.5 feet over flood stage from 4 to 5-inch rains on the 6th. The cofferdam at the construction site of the new Palmetto Dam on the Navidad River below Ganado was almost overtopped. In the eastern part of the area the Navasota crested 3 to 4 feet over flood stage. The lower Trinity River reached 3.5 feet over flood stage at Moss Bluff due mainly to releases from Lake Livingston. Minor flooding occurred on the East Fork San Jacinto, Pine Island Bayou, the Neches River at Diboll, TX, Village Creek at Kountze, TX, where 4.5 inches of rain fell on the 6th, the lower Angelina River, the Sabine River at Mineola, and the upper Calcasieu River at Hineston, LA. Excessive power demands due to the cold weather drew the level of Sam Rayburn Reservoir on the Angelina River down to 7 feet below the normal conservation pool of 164.0 feet. A contributing factor was the need of industrial users and rice growers below the reservoir for more water. During cold weather rice fields must be flooded to protect levees from freezing.	0	N.A.

FLOOD STAGE DATA

(All dates in December unless otherwise specified)

DECEMBER 1976

River and station	Flood stage	Above flood stages –dates From	To	Crest Stage	Date
	Ft			Ft	
GREAT LAKES - ST. LAWRENCE DRAINAGE					
Cattaraugus Creek:					
Ebenezer, NY	11	20	20	11.2	20
Buffalo Creek:					
Gardenville, NY	7	20	21	12.3	21
ATLANTIC SLOPE DRAINAGE					
Dan:					
Danville, VA	11	8	9	11.2	8
Cape Fear:					
Huske Lock and Dam, NC	17	14 18	14 18	43.2 42.0	14 18
Elizabethtown, NC	20	14 18	15 18	21.5 20.7	15 18
Rocky:					
Norwood, NC	15	8 14	8 14	0 9	8 14
Lumber:					
Lumberton, NC	9	9	17	11.7	18
Little Pee Dee:					
Galivants Ferry, SC	9	18	17	9.8	25
Pee Dee:					
Cheraw, SC	30	13 17	15 18	31.1 30.4	13 17
Pee Dee, SC	19	11	28	22.6	20
Broad:					
Blair, SC	14	7 13 15	9 13 19	20.9 14.0 19.4	8 13 16
Reedy:					
Greenville, SC	8	7 15	7 15	8.8 8.2	7 15
Congaree:					
St. Matthews 12 Sq. C	115	1 8	1 19	116.3 120.5	1 9,17
South Fork Edisto:					
Mc Adenville, NC	10	7	7	10.3	7
Santee:					
Jamestown, SC	10	17	17	15.7	23
North Fork Edisto:					
Orangeburg, SC	8	13	19	9.1	17
Edisto:					
Givhans Ferry, SC	10	14	17	13.1	19
Savannah:					
Millhaven-Wade 2 SE, GA	15	9	17	17.2	19
Clyo, GA	11	Nov 29	17	15.9	22
Ogeechee:					
Statesboro, GA	8	2 8 24	3 25 17	8.0 9.2 8.1	2 20 30
Eden, GA	9	9	31	10.7	31
EAST GULF OF MEXICO DRAINAGE					
Santa Fe:					
Highway 48 Bridge, FL	18	22	1	17.42	26
Ochlockonee:					
Havana, FL	25	Nov 30	6	26.89	2
Apalachicola:					
Blountstown, FL	17	Nov 29 25 31 28 Jan	30 19 31 1	18.96 17.25 16.35 17.05	2 27 31 30
[illegible]					
[illegible], FL	13	Nov 29	1	25.4	Nov 30
Geneva, AL	23	Nov 30	1	27.69	1

River and station	Flood stage	Above flood stages –dates From	To	Crest Stage	Date
	Ft			Ft	
EAST GULF OF MEXICO DRAINAGE-Cont'd					
Choctawhatchee-Continued:					
Caryville, FL	12	Nov 30	6	14.89	3
RED BASIN					
Sulphur:					
Hagansport, TX	24	6 11	6 15	45.37 46.54	6 11
Naples, TX	23	16	21	25.88	18
WEST GULF OF MEXICO DRAINAGE					
Calcasieu:					
Hineston, LA	12	27	29	13.02	28
Sabine:					
Mineola, TX	14	15	16	15.56	15
Angelina:					
Lufkin, TX (near)	8	12	30	9.66	24
Village Creek:					
Kountze, TX (near)	12	23	26	12.78	24
Pine Island Bayou:					
Sour Lake, TX	21	14 21	18 28	#25.46 #25.23	15,16 23
Neches:					
Diboll, TX (near)	10	9	17	11.82	29
Trinity:					
Liberty, TX	24	15	22	#24.95	20,21
Moss Bluff, TX	4	8	29	# 7.5	20,21,24
East Fork San Jacinto:					
Cleveland, TX (near)	13	8	11	13.44	9
Navasota:					
Easterly, TX (near)	14	10	17	18.1	13
Bryan, TX (near)	12	12	21	15.19	14
Navidad:					
Ganado, TX (near)	21	6 23	17 23	25.5 23.82	8 21
Lavaca:					
Edna, TX (near)	21	7	1	24.7	9
Guadalupe:					
Cuero USGS, TX	20	6	11	20.7	8
Victoria, TX	21	6 14	12 16	28.3 22.40	10 15
Dupont, TX	26	Nov 27	17	26.6	11
Nueces:					
Tilden, TX	14	16	28	17.34	20
Mathis Bridge, TX	13	16 19	17 20	15.7 22.3	16 20
Calallen, TX	7	Oct 27 14	1 31	# 9.2 # 8.5	Nov 7,8 21

RAWINSONDE DATA

Average monthly values

DECEMBER 1978

ALBANY, NY — 1004 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	86	-7.1	-11.4	27	2.4
1000	21	168	-6.7	-12.7	24	3.0
950	31	519	-7.4	-12.0	26	6.4
900	31	939	-9.3	-13.6	28	9.8
850	31	1,380	-10.6	-16.3	28	14.1
800	31	1,846	-11.8	-17.3	28	16.8
750	31	2,338	-13.3	-19.7	28	18.6
700	31	2,863	-14.5	-22.9	27	22.2
650	31	3,422	-16.8	-26.6	27	24.9
600	31	4,020	-19.7	-29.4	26	26.3
550	31	4,661	-23.5	-32.7	26	29.8
500	31	5,353	-27.2	-37.5	26	31.2
450	31	6,104	-32.0	-41.8	26	32.4
400	31	6,927	-37.5	-46.2	26	35.3
350	31	7,841	-42.7	-48.4	26	39.4
300	31	8,866	-48.1		26	38.8
250	31	10,055	-52.6		26	37.1
200	31	11,489	-54.7		26	36.5
175	31	12,344	-54.2		26	31.5
150	31	13,332	-54.7		26	29.3
125	30	14,491	-56.1		26	26.3
100	30	15,901	-58.7		26	21.2
80	30	17,299	-59.7		26	20.1
70	30	18,132	-60.4		26	17.5
60	28	19,097	-60.1		26	16.8
50	27	20,229	-61.5		26	13.9
40	25	21,632	-60.6		27	14.8
30	22	23,428	-60.5		26	12.6
25	21	24,562	-59.8		27	11.1
20	18	26,008	-58.2		28	8.5
15	17	27,828	-56.7		27	10.9
10	8	30,371	-54.2			

ALBUQUERQUE, NM — 840 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
31	1,619	-4.9	-10.2	36	2.3
31	2,006	.1	-12.0	34	2.8
31	2,422	-1.2	-14.5	32	5.4
31	3,070	-3.1	-16.3	31	6.4
31	3,654	-6.0	-18.8	30	6.9
31	4,276	-9.7	-24.0	30	7.1
31	4,963	-13.9	-29.2	29	8.1
31	5,660	-19.0	-33.4	28	9.4
31	6,435	-24.8	-38.0	29	9.8
31	7,281	-31.2	-44.0	29	10.6
30	8,214	-38.4	-48.7	28	12.1
28	9,256	-45.6		28	15.1
28	10,451	-52.9		27	20.3
28	11,873	-57.6		27	25.9
28	12,715	-58.5		27	25.4
28	13,683	-59.4		27	25.1
28	14,817	-62.3		27	24.0
28	16,185	-65.2		27	20.1
27	17,539	-66.7		28	16.1
26	18,344	-65.8		29	13.1
25	19,278	-65.0		29	9.9
24	20,389	-64.5		29	7.4
23	21,763	-62.0		30	7.1
21	23,551	-60.4		31	6.6
19	24,897	-58.1		31	6.1
18	26,108	-57.3		30	6.8
13	27,927	-54.8		31	9.5
6	30,504	-53.5			

AMARILLO, TX — 892 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
31	1,295	-2.4	-10.6	30	2.5
31	1,684	4.3	-10.6	31	4.4
31	1,976	3.4	-12.6	31	4.9
31	2,498	1.5	-15.4	30	5.4
31	3,050	-1.7	-18.4	28	6.9
31	3,637	-5.0	-21.5	28	8.9
31	4,261	-8.8	-25.4	28	9.8
31	4,929	-13.5	-28.7	28	11.4
31	5,646	-19.0	-32.5	28	13.0
31	6,421	-25.1	-37.1	28	13.8
31	7,266	-31.7	-43.1	27	15.4
31	8,200	-38.5	-48.4	27	17.1
31	9,239	-46.1		27	19.6
31	10,432	-53.2		27	25.6
31	11,854	-57.5		27	31.1
31	12,695	-58.6		27	31.3
31	13,661	-60.0		27	28.3
31	14,792	-62.5		27	28.1
31	16,159	-65.2		27	22.6
31	17,513	-66.6		28	18.0
31	18,326	-66.4		28	15.8
31	19,258	-65.2		28	12.7
30	20,367	-64.3		29	9.7
28	21,740	-62.6		29	8.2
27	23,520	-60.9		30	9.0
26	24,867	-59.4		30	7.7
26	26,070	-57.7		29	10.7
27	27,919	-56.4		29	11.1
7	30,489	-52.6			

* ANCHORAGE, AK — 996 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
31	45	-4.4	-8.1	36	.7
11	105	-5.8	-8.9	02	1.1
31	419	-1.9	-8.2	05	1.5
31	847	-3.9	-9.2	12	3.0
31	1,296	-6.4	-10.9	14	5.9
31	1,768	-9.4	-13.6	15	7.3
31	2,264	-12.2	-17.5	16	8.8
31	2,788	-15.3	-20.6	17	8.7
31	3,344	-19.1	-23.9	18	8.5
31	3,935	-23.1	-29.4	19	8.5
31	4,567	-27.4	-34.3	19	8.9
31	5,246	-32.3	-40.3	20	9.3
31	5,983	-36.8	-43.5	21	9.9
31	6,789	-42.2	-47.5	22	11.7
31	7,684	-47.9		22	13.1
31	8,688	-52.1		22	12.8
30	9,862	-52.8		22	13.5
30	11,314	-49.8		23	13.1
30	12,192	-47.9		23	13.1
30	13,209	-47.8		24	12.3
29	14,407	-47.5		24	11.5
27	15,883	-47.7		25	11.0
25	17,359	-47.0		25	10.9
24	18,244	-46.7		26	11.2
24	19,268	-46.6		26	11.3
24	20,477	-46.7		27	11.9
24	21,955	-47.4		28	11.1
23	23,851	-48.4		30	13.2
22	25,054	-48.6		30	13.4
22	26,521	-48.9		32	13.1
20	28,542	-46.7		34	13.8

* ANNETTE, AK — 1009 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
31	37	4.3	2.1	13	2.4
26	124	4.0	.2	19	2.8
31	523	2.0	-.5	16	5.9
31	958	-.5	-3.4	19	7.2
31	1,412	-2.9	-6.6	21	7.5
31	1,891	-5.5	-11.1	22	7.8
31	2,395	-8.2	-14.6	23	8.9
31	2,928	-11.0	-17.9	24	9.9
31	3,494	-13.8	-22.2	24	11.5
31	4,098	-17.4	-25.9	24	12.8
31	4,745	-21.7	-29.8	25	15.1
31	5,440	-26.3	-33.2	25	17.9
31	6,194	-31.7	-38.6	25	19.4
31	7,016	-38.2	-41.8	26	20.4
31	7,925	-44.7		26	23.0
31	8,939	-50.8		26	24.6
29	10,108	-56.2		27	23.3
29	11,525	-54.9		27	18.0
29	12,382	-53.6		27	16.2
28	13,373	-52.9		27	13.3
27	14,547	-53.4		28	11.9
27	15,982	-54.0		29	9.4
27	17,446	-52.3		30	6.7
27	18,311	-52.1		32	6.6
27	19,310	-51.8		34	6.6
27	20,492	-52.2		35	6.8
27	21,935	-52.5		36	9.3
27	23,802	-52.9		01	13.4
27	25,020	-53.1		01	15.3
26	26,422	-53.1		02	15.4
25	28,293	-52.3		02	15.9
5	30,939	-53.4			

ATHENS, GA — 990 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	240	1.2	-2.7	29	1.6
1000						
950	31	576	3.8	-4.4	29	4.1
900	31	1,016	3.7	-6.7	28	6.8
850	31	1,480	3.0	-9.0	28	9.5
800	31	1,970	1.7	-11.4	27	11.5
750	31	2,488	-.4	-13.9	27	14.1
700	31	3,038	-2.8	-15.8	27	16.7
650	31	3,623	-5.5	-20.0	27	19.5
600	31	4,246	-9.0	-23.0	27	22.5
550	31	4,915	-12.8	-27.0	27	25.5
500	31	5,636	-17.3	-31.7	27	28.5
450	31	6,417	-22.6	-35.0	26	31.1
400	31	7,271	-28.9	-40.3	26	33.0
350	31	8,216	-35.3	-45.7	26	38.5
300	31	9,272	-42.6	-49.0	26	44.8
250	31	10,481	-50.4		26	48.7
200	31	11,910	-58.0		27	50.7
175	31	12,747	-60.3		27	49.2
150	31	13,703	-62.3		27	42.7
125	30	14,823	-64.5		27	39.6
100	30	16,179	-66.7		27	30.8
80	30	17,526	-67.4		27	23.8
70	30	18,331	-67.2		27	20.2
60	27	19,271	-65.2		27	17.2
50	27	20,385	-64.0		27	13.7
40	27	21,760	-61.7		27	13.6
30	24	23,551	-59.0		27	15.5
25	23	24,695	-57.4		27	18.6
20	23	26,113	-54.9		26	24.6
15	21	27,953	-52.6		26	28.9
10	20	30,587	-49.1		26	42.8
7	12	32,905	-42.8			

* BARROW, AK — 1024 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
30	8	-26.9	-29.5	06	2.6
30	177	-24.3	-26.1	07	5.5
30	553	-21.3	-25.5	07	7.2
30	954	-19.9	-26.4	07	7.6
30	1,378	-20.0	-27.6	07	7.0
30	1,827	-20.6	-28.9	07	6.1
30	2,304	-21.9	-29.6	06	4.4
30	2,810	-23.8	-31.7	05	3.3
30	3,348	-26.5	-34.4	03	2.5
30	3,922	-30.0	-37.7	01	2.3
30	4,537	-33.8	-40.7	33	3.0
30	5,199	-38.0	-43.4	31	4.5
30	5,918	-42.5	-46.3	30	5.7
30	6,705	-47.4		29	7.9
30	7,581	-52.3		29	9.4
30	8,567	-55.7		29	9.2
30	9,728	-54.8		28	8.2
30	11,167	-51.8		26	8.8
30	12,034	-51.2		26	8.9
30	13,038	-50.4		26	10.5
30	14,229	-50.1		25	12.4
30	15,693	-50.1		26	13.9
30	17,138	-50.1		26	16.3
29	18,001	-51.6		26	17.1
13	19,019	-50.9		26	19.9
12	20,184	-51.8		26	21.8
10	21,644	-51.2		26	25.2
6	23,716	-45.0			

BARTER ISLAND, AK — 1019 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
31	15	-29.7	-32.9	16	.9
30	156	-26.1	-28.8	09	1.6
31	524	-23.4	-25.5	09	3.0
31	923	-20.0	-24.1	09	6.2
31	1,349	-18.5	-24.1	09	6.0
31	1,801	-19.0	-25.1	08	4.0
31	2,280	-20.3	-27.1	06	2.0
31	2,789	-22.9	-29.4	02	1.0
31	3,329	-25.6	-32.4	32	1.5
31	3,906	-28.9	-36.2	29	2.9
31	4,523	-33.0	-39.2	29	4.3
31	5,188	-37.2	-42.4	29	6.7
31	5,909	-41.8	-43.7	28	8.0
31	6,698	-47.0		28	10.6
31	7,575	-51.8		28	12.3
31	8,564	-54.5		27	14.0
31	9,734	-53.3		27	12.6
31	11,180	-50.7		27	12.3
31	12,053	-49.6		27	13.5
31	13,063	-49.5		27	14.1
31	14,259	-49.6		27	15.4
30	15,720	-50.0		27	17.2
30	17,179	-50.2		28	19.2
30	18,052	-50.2		28	20.0
30	19,058	-50.4		28	22.5
29	20,250	-50.5		28	23.2
28	21,717	-50.8		28	24.4
24	23,695	-49.7		29	27.0
22	24,887	-50.8		29	29.0
21	26,332	-50.8		29	32.5
19	28,192	-51.1		30	36.5

BETHEL, AK — 994 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
31	39	-14.3	-18.0	03	4.5
8	118	-18.0	-20.1		
30	383	-9.3	-11.7	06	5.8
30	802	-8.2	-12.2	09	4.5
30	1,246	-9.0	-13.4	11	4.1
30	1,714	-11.0	-16.2	13	4.7
30	2,208	-13.4	-20.0	14	5.5
30	2,730	-16.3	-23.2	14	5.7
30	3,284	-19.8	-26.5	15	6.1
30	3,874	-23.2	-30.0	15	6.7
30	4,505	-27.6	-33.8	16	7.5
30	5,184	-32.2	-38.9	16	7.5
30	5,919	-37.0	-42.3	17	8.0
30	6,724	-42.4	-43.1	18	9.3
30	7,618	-47.9		18	10.1
30	8,621	-52.2		19	10.0
30	9,799	-52.0		19	9.4
30	11,257	-48.8		21	9.0
30	12,136	-47.8		21	10.2
30	13,155	-47.2		22	10.4
30	14,363	-46.8		22	10.6
29	15,843	-47.0		22	10.2
29	17,322	-46.5		23	10.6
26	18,210	-46.3		22	11.0
29	19,235	-46.0		23	11.3
24	20,453	-45.6		24	10.9
24	21,940	-45.7		25	12.3
24	23,860	-45.7		26	13.1
23	25,090	-45.5		27	11.1
21	26,576	-46.0		28	11.2
13	28,538	-47.2		30	10.6
7	31,164	-53.2			

* BISMARCK, ND — 956 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
31	503	-10.8	-13.5	30	2.2
24	569	-11.7	-14.1	30	2.8
31	965	-8.6	-12.1	31	8.1
31	1,410	-7.7	-13.5	31	11.1
31	1,881	-8.3	-15.7	31	13.7
31	2,381	-10.3	-17.0	32	15.2
31	2,910	-12.8	-20.0	32	17.0
31	3,472	-15.7	-24.4	31	19.2
31	4,072	-19.2	-28.4	31	19.9
31	4,714	-23.2	-31.6	31	21.9
31	5,405	-28.2	-36.0	31	23.4
31	6,153	-33.3	-39.7	31	25.5
31	6,971	-38.7	-43.3	31	28.1
31	7,879	-44.7		31	29.7
31	8,894	-50.4		31	30.8
31	10,071	-54.6		31	30.4
30	11,491	-56.8		30	29.6
30	12,340	-55.2		30	26.2
30	13,324	-55.7		30	24.9
30	14,483	-56.8		30	22.3
30	15,886	-58.1		30	19.7
30	17,289	-58.9		31	16.5
30	18,127	-59.4		31	14.5
30	19,091	-59.8		31	14.3
29	20,235	-60.6		31	11.6
27	21,626	-60.4		33	12.2
25	23,435	-59.4		34	9.4
24	24,581	-58.9		35	10.0
16	26,020	-57.9		01	15.3
6	27,873	-57.8			

BOISE, ID — 922 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	871	-5.1	-8.7	14	1.6
1000						
950						
900	31	1,063	-.1	-7.1	14	.3
850	31	1,522	1.0	-9.6	30	1.3
800	31	2,009	.1	-11.8	29	3.3
750	31	2,524	-2.0	-14.2	30	5.3
700	31	3,070	-4.7	-16.6	30	6.9
650	31	3,650	-7.5	-20.4	30	8.4
600	31	4,269	-11.2	-23.8	30	10.1
550	31	4,931	-15.4	-27.2	30	11.6
500	31	5,644	-20.4	-32.0	30	12.9
450	31	6,416	-25.8	-36.0	30	13.7
400	31	7,259	-32.3	-41.8	31	14.1
350	31	8,189	-39.5	-45.9	31	16.1
300	31	9,223	-47.8		31	17.1
250	31	10,403	-56.4		31	17.2
200	31	11,798	-61.5		30	20.1
175	31	12,628	-60.7		31	18.2
150	31	13,589	-59.7		30	18.4
125	31	14,729	-59.9		30	17.0
100	31	16,121	-60.6		30	14.8
80	29	17,511	-60.7		31	12.4
70	29	18,342	-60.8		32	10.1
60	29	19,302	-60.2		33	9.7
50	29	20,441	-59.7		35	9.0
40	28	21,845	-59.2		01	11.1
30	27	23,657	-58.3		02	14.3
25	25	24,797	-58.1		03	14.1
20	21	26,203	-56.4		03	15.9
15	19	28,052	-55.9		04	21.0
10						
7						

BOOTHVILLE, LA — 1019 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
31	1	10.9	8.7	03	2.0
31	161	11.9	7.1	04	3.0
31	590	10.3	3.6	04	1.4
31	1,039	9.2	-.4	27	1.4
31	1,513	8.6	-3.5	27	4.1
31	2,013	6.9	-5.8	27	6.6
31	2,542	4.9	-8.0	27	9.9
30	3,102	2.2	-10.5	27	12.5
30	3,697	-.9	-14.1	26	14.1
30	4,332	-4.5	-16.8	26	16.0
30	5,012	-8.9	-21.8	26	18.7
30	5,743	-13.6	-25.5	26	22.8
30	6,538	-18.1	-28.6	26	25.2
30	7,409	-23.7	-34.0	26	31.5
30	8,374	-30.5	-39.6	26	35.8
30	9,469	-38.5	-46.0	26	40.9
30	10,677	-47.9		26	45.7
30	12,114	-58.5		26	46.5
30	12,946	-62.2		26	43.5
29	13,893	-64.8		26	42.3
29	14,998	-67.3		26	36.4
28	16,335	-70.2		26	27.6
26	17,654	-72.1		26	20.3
25	18,445	-70.4		27	15.8
23	19,366	-69.0		27	11.1
22	20,467	-64.7		27	8.7
21	21,842	-61.7		27	9.0
20	23,634	-58.3		27	13.9
17	24,783	-56.7		26	18.2
17	26,206	-54.0		26	21.9
17	28,063	-51.5		26	27.6
15	30,732	-46.1			
1	33,067	-42.3			

* BROWNSVILLE, TX — 1018 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
31	7	12.1	9.6	34	1.4
31	159	13.2	9.0	36	1.5
31	591	12.3	7.3	11	1.5
31	1,045	11.8	4.0	17	3.2
31	1,522	10.4	.6	20	4.0
31	2,027	9.3	-1.3	23	5.1
31	2,561	7.4	-2.0	25	6.7
31	3,126	4.6	-5.2	25	8.2
30	3,728	.8	-9.7	25	11.1
30	4,367	-3.1	-14.4	25	13.3
30	5,050	-7.0	-19.6	25	16.4
30	5,788	-11.3	-23.3	25	19.8
30	6,589	-16.1	-26.1	25	23.4
30	7,466	-22.1	-31.5	25	26.4
30	8,437	-29.3	-38.3	25	30.8
30	9,516	-37.5	-46.6	26	35.8
30	10,749	-47.		26	41.6
30	12,190	-58.		26	43.4
30	13,021	-63.		26	41.2
30	13,961	-66.		26	38.4
30	15,055	-69.		26	32.8
30	16,370	-74.		26	24.6
30	17,664	-75.		27	16.6
30	18,442	-73.		27	12.7
30	19,353	-70.		27	9.0
30	20,451	-65.		26	7.1
30	21,821	-61.		26	8.6
30	23,620	-57.		26	10.9
30	24,778	-55.		26	13.7
30	26,206	-53.		26	16.9
30	28,063	-51.		26	23.4
9	30,675	-49.			

BUFFALO, NY — 987 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
31	218	-6.2	-9.5	24	3.7
5	232	-8.5	-11.9		
31	519	-7.0	-10.6	25	8.5
31	939	-9.1	-12.3	26	11.2
31	1,380	-11.0	-15.9	27	12.8
31	1,845	-12.7	-18.3	27	14.2
31	2,336	-14.4	-21.5	28	16.5
31	2,858	-16.0	-23.3	28	18.5
31	3,413	-18.5	-25.0	27	20.5
31	4,007	-21.1	-29.5	27	22.7
31	4,645	-24.8	-32.8	27	23.9
31	5,333	-28.8	-37.6	27	25.2
31	6,080	-33.4	-41.5	27	27.9
31	6,898	-38.7	-45.8	26	31.9
31	7,807	-44.0		26	33.4
31	8,827	-49.1		26	34.5
31	10,012	-52.8		26	33.3
31	11,448	-53.7		26	33.1
31	12,306	-54.0		26	31.0
31	13,293	-55.1		26	30.9
31	14,456	-55.9		25	27.9
31	15,865	-57.9		25	26.3
31	17,270	-59.2			
31	18,106	-60.0			
31	19,064	-60.8		26	16.8
30	20,197	-60.7		26	13.6
30	21,573	-61.7		26	9.5
29	23,369	-60.1		26	12.1
26	24,467	-59.7			
25	25,877	-58.9			
24	27,757	-56.4			

CAPE HATTERAS, NC — 1017 MB

No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
31	4	7.4	3.2	33	2.5
29	153	7.8	1.7	33	3.1
31	564	5.9	-.4	28	4.5
31	1,008	4.1	-4.8	26	7.0
31	1,470	2.5	-9.3	26	10.0
31	1,958	.8	-11.8	26	12.4
31	2,475	-1.2	-14.2	27	15.1
31	3,023	-3.5	-16.5	26	18.9
31	3,606	-6.5	-20.1	26	21.0
31	4,228	-9.4	-22.9	26	24.5
31	4,896	-12.9	-26.5	26	29.0
31	5,617	-17.7	-30.9	26	32.2
31	6,397	-23.0	-35.4	26	34.6
31	7,250	-29.2	-40.3	26	36.3
31	8,196	-35.7	-44.6	26	40.9
31	9,247	-43.	-44.8	26	46.1
31	10,454	-51.		27	50.1
31	11,881	-58.		27	49.5
31	12,725	-60.		27	48.2
31	13,680	-61.		27	41.1
22	14,805	-63.		27	39.8
22	16,165	-66.		27	32.2
17	17,510	-66.		27	26.7
16	18,315	-66.			
13	19,256	-64.			
13	20,375	-61.			
13	21,753	-61.			
13	23,549	-58.		26	14.1
10	24,733	-58.		26	16.5
10	26,140

RAWINSONDE DATA

Average monthly values

DECEMBER 1976

Standard pressure surface, mb	* CARIBOU, ME 985 MB					CENTREVILLE, AL 1004 MB					CHARLESTON, SC 1017 MB					CHATHAM, MA 1012 MB					CHIHUAHUA, MEXICO 859 MB				
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	30	191	-15.4	-19.7	27	2.9	30	140	2.5	-2.1	01	.7	31	12	6.5	2.1	30	1.9	31	16	-1.9	-6.2	28	3.0	31	1,428	2.2	-.7	28	.7
1000							23	194	4.4	-1.7	06	1.1	30	159	7.9	1.8	33	1.9	31	142	-2.1	-7.6	28	4.5						
950	30	466	-13.6	-17.0	28	5.7	30	593	5.6	-3.8	27	2.6	31	578	8.0	-.1	29	3.5	31	514	-3.5	-9.6	28	8.2						
900	30	877	-13.9	-18.4	29	8.0	30	1,035	5.2	-6.6	28	4.8	31	1,024	6.5	-2.7	27	5.4	31	940	-5.0	-12.5	27	10.3						
850	30	1,311	-14.7	-19.7	28	11.1	30	1,501	4.2	-9.1	27	7.3	31	1,492	5.2	-7.0	27	7.8	31	1,388	-6.6	-15.2	27	12.9	31	1,513	4.5	-1.2	26	.8
800	30	1,769	-15.3	-21.3	28	11.8	30	1,993	2.4	-10.3	27	9.3	31	1,986	3.9	-9.9	27	10.3	31	1,861	-8.0	-15.9	27	14.8	31	2,009	4.7	-1.9	24	1.8
750	30	2,257	-16.0	-22.2	28	13.2	30	2,512	.3	-13.5	28	11.5	31	2,508	1.7	-11.7	27	13.4	31	2,361	-10.0	-18.6	26	16.8	31	2,533	3.1	-5.9	24	4.0
700	30	2,775	-17.9	-24.0	27	15.1	30	3,063	-1.9	-17.3	28	13.8	31	3,062	-.8	-14.6	26	16.7	31	2,891	-12.0	-20.5	26	19.6	31	3,090	1.0	-12.9	25	6.3
650	30	3,327	-19.9	-25.5	27	16.6	30	3,650	-4.6	-20.6	27	16.2	31	3,651	-3.4	-18.5	26	20.7	31	3,455	-14.6	-23.3	26	22.7	31	3,684	-1.6	-17.8	26	8.3
600	30	3,917	-22.9	-29.5	26	18.4	30	4,276	-8.1	-23.7	27	19.5	31	4,280	-7.1	-20.4	26	23.6	31	4,059	-17.4	-25.8	26	25.8	31	4,316	-5.8	-22.1	25	9.3
550	30	4,550	-26.3	-33.7	27	20.9	30	4,946	-12.1	-27.4	27	22.1	31	4,953	-11.3	-24.3	26	26.1	31	4,706	-20.9	-29.6	26	28.3	31	4,992	-10.2	-27.2	26	10.5
500	30	5,234	-30.4	-37.8	26	23.9	30	5,668	-17.0	-30.4	27	24.7	31	5,678	-16.3	-29.3	26	27.3	31	5,405	-24.9	-35.0	26	30.5	31	5,720	-15.1	-31.0	25	12.7
450	30	5,976	-35.1	-41.6	26	25.8	29	6,454	-22.3	-35.1	27	28.1	31	6,463	-21.2	-33.5	26	30.5	31	6,163	-29.9	-40.0	26	32.2	31	6,508	-20.6	-35.4	25	15.7
400	30	6,788	-40.3	-45.8	25	28.7	28	7,316	-28.0	-40.2	26	34.3	31	7,323	-26.7	-37.6	26	34.7	31	6,993	-35.7	-43.8	26	36.2	31	7,369	-26.3	-39.8	25	20.4
350	30	7,692	-45.5		25	30.3	28	8,265	-34.5	-45.1	26	39.7	31	8,277	-33.4	-42.2	26	39.6	31	7,912	-41.4	-46.9	26	39.2	31	8,324	-33.2	-44.2	25	24.2
300	30	8,706	-49.8		25	32.4	26	9,330	-42.1	-46.0	26	41.7	31	9,340	-40.9	-47.9	26	44.7	31	8,944	-46.8		26	43.1	31	9,389	-39.9	-46.0	25	31.8
250	29	9,890	-52.5		25	32.9	26	10,541	-50.3		26	47.4	30	10,556	-50.0		27	49.7	31	10,138	-52.2		26	45.1	31	10,613	-48.1		25	36.4
200	28	11,323	-52.5		25	30.2	26	11,972	-57.9		26	51.1	30	11,987	-58.6		27	53.6	31	11,571	-55.1		26	42.7	31	12,055	-56.7		26	38.1
175	28	12,186	-52.9		25	27.4	26	12,808	-60.8		26	50.8	30	12,821	-61.1		27	51.9	31	12,423	-55.6		26	39.1	31	12,895	-60.0		26	35.5
150	28	13,179	-53.4		25	24.8	26	13,763	-62.9		26	43.5	30	13,774	-63.3		27	48.1	29	13,396	-55.6		26	35.5	31	13,851	-63.2		26	30.9
125	27	14,347	-54.4		24	25.3	25	14,877	-65.1		26	37.0	30	14,888	-65.9		27	42.2	27	14,553	-57.4		26	32.4	31	14,963	-66.5		26	28.8
100	27	15,773	-56.3		25	21.9	25	16,226	-68.4		26	27.6	29	16,233	-68.6		27	34.9	25	15,956	-59.7		26	26.9	31	16,302	-70.0		26	21.5
80	26	17,179	-59.3		24	19.2	24	17,559	-69.3		26	22.7	28	17,568	-69.0		27	26.7	22	17,355	-60.4		26	24.8	28	17,824	-71.2		27	16.0
70	25	18,009	-60.5		25	18.8	24	18,359	-68.0		27	17.6	27	18,365	-68.4		26	22.3	20	18,192	-60.4		26	20.2	24	18,414	-70.2		27	11.2
60	24	18,965	-61.5		25	17.7	23	19,287	-66.9		26	15.6	27	19,295	-65.7		27	18.2	19	19,150	-60.8		25	18.3	20	19,335	-67.9		28	6.8
50	23	20,097	-61.9		25	19.3	22	20,397	-64.3		27	12.4	27	20,408	-63.8		26	16.3	18	20,297	-60.9		25	17.3	18	20,437	-65.5		25	3.8
40	22	21,482	-62.3		25	18.7	21	21,770	-62.3		27	9.2	25	21,789	-61.0		26	14.4	17	21,684	-60.1		25	17.9	17	21,805	-62.3		27	6.5
30	21	23,268	-61.9		25	17.7	21	23,558	-60.0		27	12.5	24	23,594	-58.3		26	16.7	15	23,487	-59.0		25	12.7	13	23,605	-58.1			
25	16	24,386	-63.1		25	21.9	21	24,701	-58.3		27	13.8	23	24,747	-56.3		26	18.4	13	24,626	-59.0		26	12.1	12	24,755	-56.3			
20	14	25,809	-61.7		26	22.9	21	26,109	-56.8		27	16.1	22	26,173	-54.1		26	21.7	10	26,059	-58.7		26	11.2	5	26,177	-54.0			
15	9	27,739	-58.5				19	27,950	-53.8		26	18.8	22	28,027	-52.3		26	25.5	8	27,858	-57.0									
10							14	30,573	-48.4		26	30.6	14	30,721	-47.2		26	32.7											
7							6	32,894	-43.6																					

Standard pressure surface, mb	* COLD BAY, AK 991 MB					DAYTON, OH 982 MB					DEL RIO, TX 983 MB					DENVER, CO 837 MB					DODGE CITY, KS 926 MB				
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Speed m.p.s.
SFC	28	30	-2.0	-4.2	1.0	31	299	-5.6	-9.3	2.2	31	314	5.8	2.6	1.3	31	1,611	-2.7	-10.9	2.0	31	791	-3.4	-9.9	2.0
1000	6	93	1.7	-.8							02	373	6.1	1.1											
950	29	367	-2.5	-5.0	2.6	31	552	-5.2	-10.1	6.5	31	595	7.4	.7	.3										
900	29	794	-4.8	-8.0	3.1	31	977	-5.1	-13.3	10.2	31	1,040	7.2	-1.8	1.4						31	1,016	1.9	-9.5	3.9
850	29	1,242	-7.8	-12.1	3.4	31	1,426	-5.6	-15.8	12.8	31	1,510	7.1	-5.2	2.7						31	1,478	2.8	-10.7	5.4
800	29	1,712	-10.2	-16.1	4.0	31	1,901	-7.0	-16.3	15.1	31	2,008	6.0	-6.7	2.7	31	1,973	1.8	-12.8	3.1	31	1,968	1.4	-12.2	7.2
750	29	2,206	-13.2	-21.9	4.4	31	2,402	-9.0	-16.8	17.0	31	2,536	4.2	-9.4	2.6	31	2,491	-.8	-15.6	3.0	31	2,486	-.7	-15.6	8.8
700	29	2,728	-16.6	-26.7	4.9	31	2,934	-11.3	-18.5	19.3	31	3,094	1.1	-12.9	2.6	31	3,038	-4.1	-18.7	3.1	31	3,034	-3.7	-18.7	10.2
650	29	3,282	-19.8	-29.9	5.5	31	3,500	-14.2	-21.2	21.2	31	3,686	-2.4	-16.8	2.6	31	3,619	-7.9	-21.7	3.1	31	3,615	-7.1	-21.4	10.9
600	29	3,871	-23.5	-33.2	7.4	31	4,104	-17.3	-26.4	23.4	31	4,317	-6.2	-20.1	2.6	31	4,236	-11.8	-25.4	3.1	31	4,235	-10.7	-25.3	12.2
550	29	4,502	-27.7	-37.3	8.4	31	4,751	-20.9	-32.3	28.2	31	4,993	-10.2	-24.5	2.6	31	4,897	-16.2	-29.5	3.1	31	4,898	-15.4	-29.5	14.0
500	29	5,181	-32.1	-40.6	9.6	31	5,450	-25.1	-36.2	28.8	31	5,720	-14.9	-29.6	2.6	31	5,607	-21.3	-34.5	3.1	31	5,610	-20.7	-34.8	15.4
450	29	5,917	-37.2	-43.5	10.8	31	6,208	-29.9	-40.4	32.5	31	6,509	-20.2	-33.3	2.6	31	6,376	-26.8	-38.8	3.1	31	6,380	-26.5	-38.5	16.8
400	29	6,722	-42.5	-45.3	10.7	31	7,038	-35.6	-43.9	35.2	31	7,372	-26.1	-38.6	2.5	31	7,215	-33.3	-44.0	3.1	31	7,220	-32.9	-44.0	18.8
350	29	7,617	-47.2		11.4	31	7,957	-41.8	-49.5	37.9	31	8,329	-32.4	-44.1	2.6	31	8,142	-40.5	-48.6	3.0	31	8,149	-39.9	-47.7	20.7
300	29	8,627	-50.0		12.8	31	8,985	-48.1		40.3	31	9,397	-39.7	-48.4	2.6	31	9,172	-48.4		3.1	31	9,182	-47.7		22.3
250	29	9,816	-50.4		13.3	31	10,171	-54.0		43.7	31	10,820	-48.6		2.6	30	10,351	-55.9		3.1	30	10,366	-55.0		23.9
200	29	11,283	-47.7		12.0	31	11,597	-55.4		43.5	31	12,058	-57.8		2.6	30	11,754	-59.6		2.9	30	11,778	-57.9		26.9
175	29	12,166	-47.1		12.3	31	12,447	-56.0		44.7	31	12,894	-60.7		2.6	30	12,590	-59.4		2.9	29	12,618	-58.8		29.0
150	29	13,189	-46.4		12.5	29	13,434	-56.8		36.3	31	13,846	-63.7		2.6	30	13,554	-59.8		2.8	29	13,585	-59.4		29.1
125	29	14,399	-47.1		12.7	29	14,586	-58.1		30.2	31	14,957	-66.5		2.6	30	14,687	-60.2		2.9	29	14,722	-61.0		26.2
100	28	15,877	-47.1		11.6	28	15,988	-60.6		28.3	31	16,295	-70.3		2.7	30	16,073	-62.5		2.9	29	16,101	-63.5		22.0
80	24	17,348	-47.4		10.3	27	17,365	-62.3		23.5	31	17,613	-72.0		2.8	30	17,446	-63.1		2.9	29	17,462	-64.0		17.3
70	24	18,231	-47.1		10.3	27	18,189	-62.6		18.3	30	18,402	-70.6		2.7	30	18,265	-63.3		2.9	29	18,280	-64.0		13.9
60	22	19,250	-47.6		9.2	25	19,141	-63.3		15.7	30	19,321	-68.5		2.7	30	19,215	-62.5		3.0	29	19,227	-64.1		11.5
50	21	20,451	-46.9		9.0	24	20,260	-63.5		13.8	30	20,420	-66.3		2.7	30	20,344	-61.6		3.1	29	20,344	-64.0		11.0
40	19	21,943	-46.4		7.1	13	21,620	-61.8		14.4	29	21,788	-62.9		2.7	30	21,725	-61.2		3.3	25	21,723	-62.5		9.0
30	17	23,843	-47.9		4.8	11	23,441	-61.7		11.8	28	23,575	-59.6		2.7	30	23,523	-59.2		3.5	25	23,506	-60.5		7.4
25	16	25,034	-49.0		3.1	10	24,592	-60.3			28	24,721	-58.0		2.7	30	24,664	-59.0		3.5	25	24,652	-60.0		8.5
20	14	26,525	-48.5		3.4	6	26,002	-58.6			27	26,137	-55.5		2.7	30	26,086	-57.8		3.6	25	26,044	-58.2		10.0
15	14	28,410	-49.5		3.7						22	27,991	-53.9		2.7	30	27,930	-56.8		3.5	22	26,044	-58.2		10.2
10	6	31,058	-50.3								16	30,805	-51.3		2.6						17	27,877	-57.4		
																					7	30,424	-54.5		

Standard pressure surface, mb	EL PASO, TX 885 MB					ELY, NV 812 MB					EMPALME, MEXICO 1014 MB					* FAIRBANKS, AK 990 MB					FLINT, MI 985 MB				
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Speed m.p.s.
SFC	31	1,193	-1.1	-6.2	.7	31	1,908	-10.5	-25.0	4.0	30	12	12.5	5.2	2.2	31	135	-19.4	-24.7	1.0	31	236	-9.1	-12.1	2.5
1000											30	126	16.6	6.7	2.8	5	208	-18.7	-24.6						
950											30	564	17.4	3.3	2.8	31	444	-11.3	-16.4	3.6	31	519	-8.3	-11.3	6.1
900											30	1,024	14.6	.7	2.7	31	860	-10.1	-16.7	4.8	31	938	-9.5	-14.6	9.3
850	31	1,515	4.6	-8.3	1.0						30	1,504	11.2	-1.7	1.1	31	1,301	-9.3	-17.8	4.7	31	1,379	-10.3	-18.7	10.9
800	31	2,008	2.9	-9.8	2.1	31	2,024	-2.5	-14.4	2.4	30	2,008	8.8	-7.1	2.2	31	1,769	-11.0	-18.9	4.6	31	1,845	-11.6	-19.5	13.3
750	31	2,528	.9	-12.4	3.0	31	2,540	-.4	-14.6	.7	30	2,539	6.0	-12.0	2.5	31	2,262	-13.6	-21.8	4.3	31	2,339	-13.2	-21.4	15.8
700	31	3,080	-1.5	-15.8	3.8	31	3,090	-2.6	-16.8	3.2	30	3,100	2.8	-15.4	2.6	31	2,783	-16.8	-24.7	4.1	31	2,862	-15.2	-22.8	17.8
650	31	3,667	-4.7	-19.8	4.4	31	3,675	-5.2	-19.8	5.7	30	3,696	-.6	-19.0	2.7	31	3,336	-20.7	-28.9	4.8	31	3,419	-18.1	-26.9	20.2
600	31	4,292	-8.4	-24.6	5.7	31	4,299	-9.1	-23.2	6.7	30	4,331	-4.9	-22.9	2.6	31	3,923	-24.6	-32.2	5.4	31	4,014	-20.9	-30.5	23.0
550	31	4,962	-12.8	-29.1	7.6	31	4,966	-13.7	-27.6	7.7	30	5,008	-9.5	-27.4	2.6	31	4,551	-28.8	-36.3	6.2	31	4,653	-24.6	-34.1	24.7
500	31	5,682	-17.8	-32.5	10.4	31	5,683	-19.1	-32.3	8.7	30	5,737	-14.9	-31.7	2.6	31	5,227	-33.6	-40.8	7.7	31	5,341	-28.9	-37.9	27.1
450	31	6,462	-23.5	-37.7	12.2	30	6,455	-25.0	-36.8	9.2	30	6,526	-20.1	-36.0	2.6	31	5,959	-38.6	-42.4	7.8	31	6,087	-33.7	-40.4	28.0
400	31	7,312	-30.0	-43.0	13.6	29	7,300	-31.7	-41.2	10.1	29	7,390	-25.8	-40.1	2.6	31	6,758	-44.4		7.7	31	6,905	-39.1	-45.6	31.2
350	31	8,253	-36.5	-48.3	17.4	29	8,233	-39.1	-46.3	10.5	29	8,347	-32.5	-44.7	2.6	31	7,646	-49.5		10.1	31	7,812	-44.5		34.0
300	31	9,302	-43.4	-50.5	24.7	28	9,269	-47.5		11.0	29	9,415	-39.5	-49.8	2.6	31	8,643	-53.7		11.7	31	8,830	-49.5		37.7
250	31	10,509	-50.9		31.4	28	10,451	-56.1		12.0	29	10,641	-47.4		2.6	31	9,814	-52.8		12.0	31	10,015	-53.1		39.2
200	31	11,940	-57.0		33.2	27	11,849	-61.0		30	29	12,089	-55.6		2.6	30	11,268	-50.2		12.3	31	11,447	-53.7		36.5
175	31	12,781	-59.4		32.4	25	12,678	-60.2		29	29	12,933	-59.0		2.6	30	12,143	-48.9		12.5	31	12,305	-54.1		35.7
150	30	13,742	-61.1		29.9	25	13,640	-60.3		29	29	13,894	-61.5		2.6	30	13,157	-48.5		12.4	31	13,294	-54.4		31.9
125	29	14,868	-64.5		28.5	24	14,771	-61.5		29	29	15,014	-65.5		2.6	30	14,346	-48.4		13.3	31	14,458	-55.8		29.3
100	29	16,220	-68.2		22.0	24	16,150	-63.1		30	28	16,363	-68.9		2.6	30	15,818	-48.7		13.3	31	15,871	-58.1		26.3
80	28	17,549	-69.6		17.9	24	17,518	-64.4		30	24	17,694	-70.5		2.7	30	17,292	-48.6		13.7	31	17,270	-59.7		22.2
70	26	18,347	-68.6		14.2	24	18,335	-64.0		31	22	18,489	-69.0		2.7	30	18,172	-48.2		13.8	30	18,103	-60.3		20.3
60	23	19,268	-66.9		11.0	23	19,278	-63.7		32	22	19,416	-66.8		2.7	30	19,200	-47.8		14.5	30	19,063	-61.1		17.1
50	22	20,368	-65.9		7.7	22	20,399	-62.4		33	21	20,529	-64.4		2.7	30	20,416	-47.5		15.6	29	20,194	-61.8		14.8
40	20	21,734	-62.8		6.6	20	21,785	-62.0		36	18	21,903	-61.1		2.8	30	21,930	-46.5		14.7	24	21,587	-61.2		13.7
30	20	23,520	-59.3		8.8	18	23,573	-59.9		02	18	23,699	-58.0		2.8	30	23,887	-45.4		15.7	24	23,393	-60.9		13.0
25	17	24,670	-57.9		9.1	18	24,715	-58.8		02	15	24,859	-56.3		2.7	29	25,115	-43.4		22.0	18	24,521	-60.6		14.0
20	17	26,084	-55.7		12.1	15	26,138	-57.4		01	10	26,305	-54.7		2.8	28	26,655	-42.0			17	25,927	-60.0		16.3
15	11	27,952	-54.6		17.3	10	27,919	-56.2													16	27,377	-59.7		
10						6	30,532	-52.5													7	27,881	-53.9		

RAWINSONDE DATA

Average monthly values

DECEMBER 1976

GLASGOW, MT
934 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	696	-8.3	-11.3	30	1.0
1000						
950						
900	31	984	-4.0	-9.5	31	8.4
850	31	1,436	-3.4	-11.0	31	13.5
800	31	1,915	-5.3	-13.6	31	14.9
750	31	2,419	-8.0	-16.8	31	15.3
700	31	2,952	-10.7	-20.2	31	16.6
650	31	3,519	-14.0	-22.4	31	17.7
600	31	4,122	-17.4	-26.4	31	19.8
550	31	4,769	-21.2	-30.7	32	22.7
500	31	5,480	-25.9	-36.1	32	25.2
450	31	6,222	-31.1	-40.5	32	27.3
400	31	7,045	-37.1	-43.6	32	30.1
350	31	7,980	-43.3	-45.1	32	31.2
300	30	8,982	-50.4		32	34.1
250	30	10,155	-56.2		31	31.1
200	30	11,565	-58.3		31	29.4
175	29	12,399	-56.7		31	24.4
150	29	13,379	-56.5		31	22.8
125	28	14,532	-56.6		31	20.4
100	28	15,944	-57.7		31	17.1
80	25	17,356	-58.4		32	16.1
70	24	18,197	-58.5		32	14.6
60	24	19,166	-58.6		33	13.4
50	24	20,311	-58.9		34	13.5
40	20	21,707	-58.0		36	11.7
30	14	23,524	-58.5		36	14.1
25	12	24,681	-57.7		01	16.2
20	9	26,060	-58.4			
15						
10						

GRAND JUNCTION, CO
857 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	1,472	-7.5	-16.3	12	2.2
1000						
950						
900	26	1,550	-3.0	-14.4	12	2.5
850	31	2,016	-1.8	-14.2	11	2.2
800	31	2,528	-3.2	-15.1	26	.5
750	31	3,072	-5.4	-17.5	30	3.8
700	31	3,651	-7.6	-20.6	32	6.6
650	31	4,272	-11.1	-25.0	30	7.8
600	31	4,933	-15.3	-27.8	31	9.7
550	31	5,646	-20.4	-32.4	31	11.2
500	31	6,417	-26.0	-36.9	31	12.5
450	31	7,259	-32.4	-42.7	31	13.4
400	31	8,189	-39.8	-47.8	31	14.5
350	31	9,222	-47.8		31	15.0
300	30	10,405	-55.2		30	16.2
250	30	11,811	-59.4		30	18.6
200	27	12,644	-59.0		27	18.0
175	26	13,611	-59.2		29	18.9
150	26	14,751	-60.5		29	18.4
125	26	16,136	-63.0		29	16.8
100	25	17,502	-63.9		29	14.1
80	24	18,321	-63.4		30	12.6
70	19	19,266	-62.7		31	9.8
60	22	20,386	-62.0		32	8.4
50	21	21,762	-61.2		32	7.1
40	17	23,566	-59.4		35	7.6
30	15	24,718	-58.6		35	7.4
25	11	26,100	-56.9		34	7.6
20	7	27,930	-56.8			
15						
10						

GREAT FALLS, MT
888 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	1,118	-1.4	-8.2	23	4.2
1000						
950						
900	31	1,471	.0	-10.2	26	9.5
850	31	1,954	-2.[illegible]	-11.8	28	9.8
800	31	2,465	-5.0	-14.7	30	11.8
750	31	3,004	-7.5	-19.0	31	14.3
700	31	3,577	-10.8	-22.3	31	16.3
650	31	4,188	-14.5	-26.0	31	17.3
600	31	4,842	-18.9	-29.9	31	19.4
550	31	5,545	-23.6	-33.9	31	21.7
500	31	6,307	-29.0	-38.5	32	23.6
450	31	7,139	-35.3	-43.3	31	24.3
400	31	8,058	-42.5	-44.1	32	24.3
350	31	9,079	-50.2		31	28.7
300	31	10,254	-57.5		31	29.3
250	30	11,656	-61.2		31	28.8
200	27	12,[illegible]90	-59.5		31	26.5
175	26	13,451	-58.3		31	22.2
150	26	14,998	-58.5		31	20.2
125	26	15,999	-59.3		31	17.6
100	26	17,379	-59.4		32	14.3
80	24	18,216	-59.7		32	13.3
70	19	19,180	-59.8		33	12.2
60	20	20,319	-59.6		35	12.9
50	21	21,717	-59.1		35	11.9
40	21	23,523	-59.0		01	11.5
30	16	24,679	-58.4		02	12.6
25	12	26,100	-56.9		02	12.4
20	9	27,921	-55.6			
15						
10						

GREEN BAY, WI
962 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	30	210	-13.6	-16.5	28	2.8
1000	5	224	-17.5	-21.1		
950	30	518	-11.6	-15.2	29	5.5
900	30	932	-12.4	-16.8	30	7.3
850	30	1,369	-12.3	-20.4	30	9.0
800	30	1,832	-13.0	-21.3	29	11.2
750	30	2,323	-14.1	-22.6	29	14.1
700	30	2,845	-16.1	-24.4	29	16.9
650	30	3,401	-18.5	-27.7	29	18.6
600	30	3,994	-21.7	-30.7	29	20.1
550	30	4,630	-25.3	-33.7	29	21.7
500	30	5,317	-29.4	-37.6	29	23.7
450	30	6,061	-34.2	-40.2	29	25.9
400	30	6,876	-39.9	-43.9	29	28.0
350	31	7,780	-45.4		29	28.8
300	30	8,791	-50.6		29	31.4
250	30	9,973	-53.8		28	33.9
200	30	11,404	-54.2		28	31.0
175	30	12,260	-54.2		28	29.8
150	29	13,245	-54.2		28	27.4
125	28	14,400	-55.9		28	23.6
100	28	15,855	-57.5		28	18.1
80	25	17,216	-58.9		28	14.8
70	23	18,052	-60.1		28	13.8
60	26	19,012	-61.1		28	13.7
50	24	20,143	-61.5		29	11.4
40	24	21,526	-61.5		29	10.1
30	16	23,377	-60.9		29	10.5
25	13	24,528	-60.4		30	9.4
20	9	25,947	-57.8			
15						
10						

GREENSBORO, NC
985 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	29	275	-.1	-3.7	27	1.6
1000						
950						
900	29	966	6.2	-8.9	28	5.9
850	29	996	1.4	-8.8	28	8.4
800	29	1,458	.8	-12.0	29	10.9
750	29	1,944	-.4	-11.0	29	13.0
700	29	2,459	-2.5	-12.9	28	15.3
650	29	3,004	-4.9	-16.3	28	17.2
600	29	3,583	-8.1	-19.7	28	18.4
550	29	4,201	-11.4	-24.2	27	21.3
500	29	4,864	-15.4	-29.2	27	24.8
450	29	5,577	-20.0	-33.1	27	27.5
400	29	6,351	-24.9	-37.6	26	30.5
350	29	7,197	-30.8	-42.4	26	33.1
300	29	8,135	-37.3	-46.6	26	38.6
250	29	9,181	-44.5		26	42.5
200	29	10,383	-51.6		26	47.1
175	29	11,807	-54.2		27	46.1
150	29	12,645	-59.4		27	43.5
125	29	13,609	-60.3		27	41.6
100	28	14,736	-62.5		27	34.8
80	25	16,105	-64.5		27	29.0
70	25	17,468	-65.4		27	24.0
60	25	18,280	-65.5		27	21.3
50	25	19,220	-64.7		28	16.9
40	24	20,330	-63.3		28	15.3
30	24	21,[illegible]10	-61.7		27	11.1
25	24	23,499	-59.7		27	14.3
20	23	24,827	-59.3		27	17.2
15	21	26,338	-57.1		26	16.1
10	20	27,876	-54.4		26	23.3
	13	30,496	-49.4			

GUADALUPE IS., MEXICO
1014 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	30	23	16.5	11.8	33	3.6
1000	30	444	16.3	8.5	33	3.9
950	30	879	14.6	.3	34	2.6
900	30	1,034	12.[illegible]	-3.2	01	1.7
850	30	1,511	10.5	-8.6	31	1.2
800	30	2,013	8.7	-10.7	36	1.6
750	30	2,545	6.3	-13.9	33	1.8
700	30	3,107	3.2	-17.1	30	2.0
650	30	3,704	-.[illegible]	-20.8	28	2.8
600	29	4,338	-4.7	-24.4	26	3.7
550	29	5,[illegible]16	-9.7	-28.2	24	3.9
500	29	5,744	-15.[illegible]	-32.1	27	6.6
450	29	6,532	-21.0	-36.4	26	8.0
400	29	7,390	-27.8	-41.0	26	10.7
350	29	8,349	-34.1	-47.5	26	14.8
300	29	9,410	-40.8	-44.[illegible]	26	22.0
250	29	10,640	-48.1		25	30.5
200	29	12,095	-58.6		25	35.0
175	29	12,928	-60.5		26	29.3
150	29	13,883	-62.8		26	26.3
125	29	15,005	-65.5		27	21.1
100	29	16,349	-68.2		27	17.2
80	29	17,685	-69.2		28	13.4
70	29	18,472	-68.9		28	11.8
60	29	19,397	-67.9		28	8.7
50	29	20,496	-65.7		29	6.5
40	29	21,869	-62.5		27	5.8
30	29	23,659	-58.8		27	9.9
25	29	24,859	-55.8			
20	28	26,289	-53.5			
15						
10						

GUAM, MARIANA IS.
998 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	111	24.7	22.2	08	4.5
1000	7	115	25.4	22.1		
950	31	549	22.8	19.9	09	9.7
900	31	1,019	20.1	15.2	09	10.0
850	31	1,511	17.9	9.4	09	8.9
800	31	2,029	15.9	4.5	09	8.6
750	31	2,575	13.6	-2.4	09	8.0
700	31	3,153	10.6	-5.8	09	7.6
650	31	3,767	7.5	-8.9	09	7.1
600	31	4,422	3.8	-12.6	10	6.2
550	31	5,123	-.4	-18.0	11	6.5
500	29	5,879	-4.5	-23.2	10	6.6
450	29	6,702	-9.4	-27.4	09	6.4
400	29	7,602	-15.3	-32.9	09	5.6
350	29	8,600	-22.2	-38.7	10	5.9
300	29	9,711	-30.7	-46.3	10	4.9
250	29	10,970	-41.0	-53.4	10	3.5
200	30	12,455	-53.5		12	3.1
175	30	13,301	-60.5		14	3.2
150	30	14,243	-68.5		12	3.5
125	30	15,315	-76.3		11	4.1
100	28	16,573	-83.6		11	5.1
80	22	17,811	-82.8		12	7.4
70	20	18,561	-79.7		10	6.6
60	19	19,447	-73.7		10	5.2
50	19	20,531	-67.5		11	6.6
40	19	21,890	-63.1		10	9.7
30	19	23,683	-58.0		09	13.8
25	19	24,843	-54.0		09	15.2
20	17	26,296	-49.9		09	15.1
15	14	28,199	-46.6		08	11.9
10	6	30,892	-46.5			

WILD, WI
10.5 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	10	20.1	17.2	25	3.1
1000	31	130	21.1	17.2	28	.3
950	31	579	18.2	15.7	08	2.2
900	31	1,041	15.0	13.0	09	2.4
850	31	1,534	12.0	9.9	09	2.5
800	31	2,030	9.9	2.0	09	3.0
750	31	2,566	8.6	-6.4	09	3.1
700	31	3,134	6.4	-12.1	07	2.9
650	31	3,739	3.8	-16.4	04	2.3
600	31	4,384	.4	-18.8	01	2.9
550	31	5,077	-3.5	-22.6	34	4.6
500	31	5,823	-8.5	-27.7	33	4.4
450	31	6,632	-13.8	-32.3	32	4.8
400	31	7,515	-20.6	-37.3	32	11.9
350	31	8,491	-28.0	-43.8	31	15.5
300	31	9,577	-36.4	-50.4	30	14.[illegible]
250	31	10,816	-45.4		29	21.4
200	31	12,271	-55.4		29	24.5
175	31	13,114	-60.2		29	26.3
150	31	14,064	-65.4		28	23.8
125	31	15,158	-70.9		29	20.1
100	31	16,460	-77.0		29	13.8
80	26	17,734	-77.8		31	8.4
70	28	18,513	-75.3		32	4.6
60	27	19,406	-70.3		36	.9
50	26	20,498	-65.5		16	.6
40	25	21,870	-61.1		11	.7
30	23	23,674	-57.4		10	2.0
25	23	24,827	-55.5		9	3.1
20	21	26,254	-52.6		19	1.8
15	19	28,123	-50.5		26	6.5
10	7	30,772	-48.1			

HUNTINGTON, W.
988 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	30	246	-1.8	-6.9	25	1.3
1000						
950	30	555	-1.1	-7.5	24	6.3
900	30	986	-2.5	-10.1	26	9.8
850	30	1,438	-4.2	-12.5	27	11.1
800	30	1,916	-5.0	-15.1	27	13.5
750	30	2,421	-6.9	-15.9	27	16.2
700	30	2,958	-9.1	-16.8	27	19.5
650	30	3,528	-12.0	-19.4	27	21.3
600	30	4,137	-15.4	-23.7	27	23.8
550	30	4,790	-18.9	-28.3	27	26.8
500	30	5,494	-23.1	-33.1	27	29.1
450	29	6,251	-28.0	-38.9	27	32.0
400	29	7,087	-34.0	-43.6	27	33.6
350	29	8,013	-40.2	-46.7	27	37.0
300	29	9,048	-46.7		27	40.4
250	29	10,240	-52.6		26	42.7
200	28	11,679	-55.6		26	43.0
175	28	12,528	-56.4		27	41.5
150	28	13,505	-57.3		26	36.9
125	28	14,653	-59.1		26	32.3
100	27	16,042	-61.7		27	26.4
80	26	17,418	-63.0		27	20.3
70	25	18,244	-62.9		27	18.3
60	21	19,193	-62.1		27	15.7
50	21	20,320	-61.7		27	12.9
40	19	21,711	-60.5		27	12.6
30	17	23,517	-60.8		27	10.0
25	10	24,659	-58.5			
20	9	26,079	-57.6			
15	6	27,908	-56.6			
10						

INTERNATIONAL FALLS, MN
970 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	359	-20.3	-23.5	26	1.4
1000						
950						
900	31	516	-18.7	-20.7	28	2.5
850	31	920	-17.7	-19.9	30	6.2
800	31	1,349	-16.6	-22.3	31	9.2
750	31	1,805	-16.7	-22.0	31	11.7
700	31	2,289	-17.6	-22.9	31	13.6
650	31	2,804	-18.8	-24.5	31	15.7
600	31	3,353	-21.1	-27.2	31	17.4
550	31	3,943	-23.2	-32.2	31	19.1
500	31	4,573	-27.5	-36.7	31	20.8
450	31	5,253	-31.7	-40.1	31	23.1
400	31	5,991	-36.3	-41.8	31	24.6
350	31	6,800	-[illegible]5	-43.9	31	27.1
300	31	7,697	-46.7		30	28.7
250	31	8,706	-51.2		30	29.9
200	31	9,883	-53.8		30	29.5
175	31	11,317	-[illegible]		30	28.3
150	31	12,178	-52.9		30	25.5
125	31	13,173	-53.1		30	22.7
100	31	14,345	-54.3		30	22.6
80	31	15,771	-55.9		30	19.7
70	31	17,184	-57.9		31	17.0
60	31	18,031	-58.1		31	15.3
50	31	18,993	-59.4		31	14.5
40	28	20,136	-59.8		31	12.2
30	24	21,538	-59.5		30	10.0
25	16	23,329	-59.9		33	9.7
20	13	24,524	-58.4		01	10.0
15	11	25,937	-56.5		35	9.1
10	8	27,752	-55.1			

ISLE DEL LISNE
1012 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	10	25.7	22.3	08	3.4
1000	31	111	25.6	21.1	07	4.8
950	31	561	21.9	19.0	08	7.0
900	31	1,030	19.0	14.6	09	6.7
850	31	1,523	16.1	10.6	10	6.3
800	31	2,033	13.5	6.9	10	5.8
750	31	2,575	11.2	1.5	10	5.3
700	31	3,149	8.9	-5.0	09	5.1
650	31	3,760	6.2	-10.6	10	4.8
600	31	4,412	2.6	-14.6	10	3.9
550	31	5,[illegible]1	-.6	-19.4	12	2.9
500	31	5,862	-6.1	-23.7	15	2.2
450	31	6,679	-11.2	-28.1	20	1.9
400	31	7,572	-17.7	-33.9	24	2.5
350	31	8,561	-24.9	-39.9	28	3.8
300	31	9,658	-34.1	-48.1	28	4.[illegible]
250	31	10,902	-44.4		28	8.[illegible]
200	31	12,306	-56.0		27	9.8
175	31	13,202	-61.5		26	7.9
150	31	14,[illegible]4	-67.0		26	12.7
125	31	15,231	-72.5		27	13.2
100	30	16,[illegible]52	-77.4		27	7.[illegible]
80	28	17,795	-80.1		28	2.2
70	26	18,569	-77.7		28	.6
60	25	19,442	-72.3		05	1.4
50	24	20,[illegible]36	-65.2		08	2.4
40	24	21,915	-59.9		09	4.3
30	23	23,[illegible]28	-56.5		09	8.2
25	22	24,896	-53.4		09	8.2
20	19	26,341	-49.8		08	7.7
15	18	28,240	-46.5		12	5.9
10	11	30,925	-44.3			

JACKSON, MS
1008 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	100	3.2	.6	24	.1
1000	27	177	4.7	-.4	23	.2
950	31	586	9.8	-1.6	28	3.4
900	31	1,029	6.3	-4.6	28	4.7
850	31	1,497	5.2	-6.5	28	6.2
800	31	1,991	3.8	-9.1	28	8.7
750	31	2,514	.9	-11.7	28	11.4
700	31	3,068	-.7	-14.8	27	13.5
650	31	3,657	-3.5	-17.3	27	15.9
600	31	4,286	-6.9	-20.7	27	18.1
550	31	4,959	-11.3	-23.9	26	19.3
500	31	5,684	-16.2	-28.2	27	22.1
450	31	6,469	-21.7	-32.9	26	26.5
400	31	7,326	-27.3	-38.1	26	29.9
350	31	8,277	-33.9	-44.2	27	28.6
300	31	9,337	-41.7	-49.1	26	30.1
250	31	10,552	-49.9		25	34.4
200	31	11,985	-57.7		25	34.4
175	31	12,821	-60.7		25	33.7
150	31	13,776	-62.8		25	30.8
125	31	14,894	-65.0		25	31.9
100	30	16,245	-68.0		25	31.5
80	28	17,582	-68.5		25	31.4
70	26	18,389	-68.2		25	31.7
60	24	19,319	-66.6		25	31.4
50	24	20,427	-65.0		25	31.1
40	23	21,796	-62.7		25	31.1
30	22	23,382	-60.0		25	31.1
25	22	24,730	-58.8		25	31.4
20	21	26,137	-56.7		26	31.1
15	20	27,982	-54.0		25	26.2
10	11	30,644	-48.9			
7	6	33,035	-43.4			

JOHN F. KENNEDY INT. AP
1015 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	31	5	-1.4	-9.0	28	2.5
1000	31	148	-2.[illegible]	-8.8	27	3.5
950	31	532	-3.8	-10.0	28	4.3
900	31	951	-5.6	-12.8	28	9.2
850	31	1,405	-7.0	-14.1	28	11.2
800	31	1,877	-7.9	-15.4	28	13.2
750	31	2,377	-9.3	-16.6	27	16.0
700	31	2,909	-11.5	-19.0	27	18.[illegible]
650	31	3,474	-14.2	-22.7	27	21.5
600	31	4,078	-17.3	-25.5	27	24.6
550	31	4,726	-20.6	-29.1	27	28.[illegible]
500	31	5,426	-25.0	-34.0	27	32.4
450	30	6,192	-29.6	-39.[illegible]	27	33.7
400	30	7,023	-34.9	-43.2	27	34.4
350	30	7,946	-40.9	-46.0	26	42.[illegible]
300	30	8,976	-47.6		26	44.9
250	29	10,167	-53.4		26	46.9
200	29	11,592	-55.6		26	45.9
175	29	12,442	-56.1		26	43.[illegible]
150	28	13,421	-56.4		27	38.2
125	27	14,572	-58.3		25	33.5
100	26	15,967	-60.9		25	30.4
80	24	17,355	-61.[illegible]		27	29.1
70	24	18,182	-61.[illegible]		27	21.5
60	24	19,136	-62.2		27	18.8
50	23	20,267	-62.2		27	16.8
40	23	21,[illegible]050	-61.3		26	16.9
30	22	23,439	-59.8		26	16.6
25	21	24,[illegible]58	-59.3		26	16.9
20	21	25,973	-57.9		25	19.2
15	19	27,787	-55.6		25	24.5
10	10	30,403	-52.1			

JOHNSTON IS., PACIFIC AREA
1013 MB

Standard pressure surfaces mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m.p.s.
SFC	3	3	25.1	21.2	08	7.9
1000	3	[illegible]	24.1	20.2	08	8.4
950	31	562	20.2	17.7	08	9.5
900	31	1,028	17.1	13.6	08	9.1
850	31	1,514	14.2	10.8	08	7.7
800	31	2,024	12.5	3.2	09	6.6
750	31	2

RAWINSONDE DATA

Average monthly values

DECEMBER 1976

KING SALMON, AK — 995 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	30	15	-7.2	-9.1	08	2.0
1000	9	83	-5.4	-7.0		
980	30	378	-3.4	-6.3	12	4.4
900	30	805	-4.5	-7.9	14	4.6
850	30	1,253	-7.0	-10.7	16	5.0
800	30	1,724	-9.5	-15.1	17	6.1
750	30	2,220	-12.3	-17.7	18	7.0
700	30	2,745	-15.2	-21.2	19	6.8
650	30	3,301	-18.3	-24.8	19	6.1
600	30	3,895	-21.9	-29.2	19	6.7
550	30	4,530	-26.2	-32.8	19	9.0
500	30	5,213	-30.8	-37.3	19	9.4
450	30	5,953	-35.9	-39.4	20	9.6
400	30	6,761	-41.9	-42.1	19	10.3
350	30	7,657	-47.1		20	12.5
300	30	8,664	-51.5		20	14.7
250	30	9,846	-51.1		21	14.6
200	28	11,306	-48.1		22	13.1
175	28	12,188	-47.3		22	12.7
150	27	13,210	-47.1		23	12.2
125	27	14,418	-46.9		23	12.8
100	27	15,896	-47.5		23	11.3
80	25	17,375	-46.7		24	10.7
70	25	18,261	-46.8		24	9.6
60	22	19,294	-46.4		25	9.4
50	22	20,506	-46.5		26	8.9
40	21	21,992	-46.3		26	7.8
30	20	23,919	-46.8		29	9.3
25	19	25,127	-47.3		31	7.5
20	16	26,650	-46.9		03	2.1
15	10	28,628	-45.0			
10						
7						

KOROR, CAROLINE IS. — 1006 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	30	30	27.5	24.6	08	1.2
1000	30	82	26.7	23.9	08	1.8
980	30	535	23.5	21.3	08	4.2
900	30	1,007	20.7	17.6	08	4.9
850	30	1,500	18.1	13.2	08	4.8
800	30	2,019	15.7	9.8	08	4.3
750	30	2,565	13.3	4.3	08	5.2
700	30	3,143	10.3	.2	09	5.3
650	30	3,757	7.0	-3.9	09	5.5
600	30	4,411	3.4	-6.2	09	5.5
550	30	5,113	-.4	-11.7	09	6.0
500	30	5,870	-4.6	-16.3	09	6.9
450	30	6,692	-9.4	-21.8	10	7.5
400	30	7,593	-15.1	-28.1	09	8.7
350	30	8,593	-21.8	-33.8	09	9.2
300	30	9,705	-29.9	-42.0	09	8.5
250	30	10,975	-40.3	-48.3	10	8.9
200	30	12,456	-52.9		10	10.7
175	28	13,304	-59.9		10	11.2
150	28	14,249	-68.0		10	12.8
125	28	15,322	-76.3		10	14.7
100	28	16,585	-82.3		10	10.9
80	25	17,826	-82.5		09	6.3
70	25	18,583	-76.5		07	3.0
60	22	19,483	-71.5		04	1.1
50	22	20,575	-65.8		08	5.8
40	21	21,948	-61.8		09	16.0
30	21	23,750	-56.4		09	23.8
25	19	24,913	-53.6		09	24.7
20	19	26,362	-49.8		09	27.8
15	16	28,255	-44.8		09	20.1
10	13	30,988	-42.1		26	6.3
7	5	33,428	-35.7			

KOTZEBUE, AK — 1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	5	-20.1	-23.5	05	3.4
1000	24	110	-14.5	-20.4	07	4.3
980	31	469	-12.3	-19.0	08	7.4
900	31	883	-12.2	-19.7	09	7.0
850	31	1,319	-13.0	-21.5	09	6.8
800	31	1,780	-14.4	-22.5	09	6.2
750	31	2,268	-16.4	-25.4	08	5.7
700	31	2,784	-19.2	-28.1	08	5.5
650	31	3,332	-22.5	-31.9	08	4.8
600	31	3,915	-26.3	-34.9	08	4.4
550	31	4,539	-30.6	-38.6	09	2.7
500	31	5,210	-34.9	-42.7	10	1.4
450	31	5,938	-39.7	-44.8	14	.9
400	30	6,734	-45.5		16	1.3
350	30	7,615	-51.7		20	4.6
300	30	8,602	-55.8		22	6.1
250	30	9,762	-55.3		22	8.0
200	28	11,202	-51.7		22	8.2
175	28	12,065	-50.4		23	10.3
150	28	13,073	-49.3		23	11.6
125	28	14,270	-48.9		23	12.5
100	28	15,736	-48.9		23	14.1
80	28	17,204	-48.2		23	15.9
70	28	18,084	-48.2		24	17.3
60	28	19,100	-48.4		24	18.7
50	28	20,301	-48.1		25	19.8
40	28	21,770	-48.8		25	21.4
30	26	23,679	-48.5		25	22.7
25	23	24,939	-47.0		26	25.4
20	19	26,472	-46.7		26	26.2
15	13	28,451	-46.4		27	29.4
10	6	31,273	-43.3		28	26.5

KWAJALEIN, MARSHALL IS. — 1011 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	6	4	26.7	22.9		
1000	6	98	25.9	22.5		
980	6	549	22.3	20.3		
900	6	1,018	19.1	16.6		
850	6	1,508	16.7	13.0		
800	6	2,025	15.2	4.0		
750	6	2,569	12.6	-.6		
700	6	3,147	10.2	-4.5		
650	6	3,759	6.7	-6.5		
600	6	4,413	3.4	-12.4		
550	6	5,114	-.4	-17.6		
500	6	5,869	-5.2	-20.1		
450	6	6,690	-9.6	-21.2		
400	6	7,590	-15.6	-26.7		
350	6	8,585	-22.7	-37.1		
300	6	9,699	-30.6	-46.5		
250	6	10,968	-40.8	-51.5		
200	6	12,445	-53.3	-62.6		
175	6	13,290	-60.7			
150	6	14,231	-68.7			
125	6	15,299	-77.6			
100	6	16,552	-84.5			
80	5	17,787	-82.6			
70	5	18,538	-79.9			
60	5	19,425	-74.1			
50	5	20,501	-68.6			
40	5	21,856	-64.0			
30	5	23,639	-58.9			
25	5	24,796	-54.0			
20	5	26,234	-51.9			
15	5	28,120	-46.6			

LAKE CHARLES, LA — 1020 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	5	7.5	4.4	03	1.8
1000	31	167	9.8	3.4	04	1.5
980	31	593	9.6	1.6	29	.5
900	31	1,042	9.0	-2.7	25	2.8
850	31	1,514	7.6	-5.2	26	4.5
800	31	2,012	5.7	-6.2	27	7.0
750	31	2,538	3.4	-8.7	26	8.9
700	31	3,095	.8	-11.0	26	11.4
650	31	3,687	-2.5	-15.7	26	13.8
600	31	4,319	-5.8	-20.0	26	16.4
550	31	4,995	-10.2	-25.0	26	18.8
500	31	5,723	-14.8	-29.1	26	21.5
450	31	6,512	-20.0	-32.2	26	24.7
400	31	7,376	-25.6	-37.1	26	29.8
350	29	8,335	-32.4	-43.3	26	33.2
300	29	9,403	-39.8	-47.5	26	40.2
250	29	10,624	-48.9		26	45.6
200	29	12,059	-58.3		26	48.5
175	29	12,892	-61.4		26	45.8
150	29	13,843	-64.2		26	42.5
125	29	14,951	-66.8		26	37.8
100	28	16,292	-70.1		26	27.2
80	24	17,613	-71.8		27	20.2
70	23	18,401	-70.6		27	15.0
60	21	19,327	-69.2		27	12.3
50	18	20,415	-65.9		27	11.1
40	16	21,787	-62.7		27	10.3
30	15	23,572	-59.5		26	15.6
25	15	24,720	-57.1		26	20.0
20	15	26,137	-56.0		26	28.7
15	13	27,990	-52.8		26	30.9

LANDER, WY — 830 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	1,697	-6.6	-12.0	22	.7
1000						
980						
900						
850						
800	31	1,983	-1.0	-12.7	29	1.0
750	31	2,497	-2.4	-15.7	31	4.9
700	31	3,041	-5.5	-18.7	31	8.2
650	31	3,619	-9.2	-22.1	31	10.7
600	31	4,233	-13.1	-25.0	32	13.9
550	31	4,891	-17.0	-29.5	31	15.9
500	31	5,599	-22.1	-32.8	31	17.3
450	31	6,365	-27.6	-38.1	31	19.1
400	31	7,202	-34.0	-43.3	31	19.8
350	31	8,126	-41.1	-47.0	31	21.5
300	31	9,153	-49.2		31	23.0
250	31	10,327	-57.0		30	24.8
200	31	11,724	-60.9		30	25.9
175	31	12,556	-60.0		30	24.8
150	31	13,521	-59.3		30	22.0
125	31	14,663	-60.1		30	20.1
100	31	16,051	-61.3		30	17.1
80	31	17,432	-61.5		30	13.4
70	31	18,260	-61.4		31	11.7
60	31	19,217	-61.4		32	10.7
50	29	20,352	-61.6		33	9.3
40	28	21,734	-61.0		34	8.3
30	26	23,518	-60.1		36	9.2
25	24	24,668	-59.2		36	11.2
20	20	26,073	-57.8		36	11.8
15	10	27,893	-57.4		35	7.9
10						
7						

LIHUE KAUAI, HI — 1013 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	36	21.5	18.3	05	2.4
1000	31	148	21.8	17.7	06	3.6
980	31	592	18.3	15.9	06	5.8
900	31	1,054	15.0	12.4	06	5.5
850	31	1,536	12.4	6.4	07	4.7
800	31	2,044	11.0	-.5	08	4.0
750	31	2,581	9.6	-8.8	07	3.6
700	31	3,151	7.9	-13.5	05	2.6
650	31	3,758	4.6	-16.2	01	2.3
600	31	4,405	.7	-19.0	34	2.9
550	31	5,098	-3.6	-22.8	32	3.5
500	31	5,844	-8.6	-26.4	32	5.5
450	31	6,652	-14.1	-31.0	30	8.6
400	31	7,535	-20.8	-35.7	30	11.8
350	31	8,510	-28.4	-41.4	30	13.7
300	31	9,593	-37.0	-49.9	30	16.0
250	31	10,830	-45.7		30	20.4
200	31	12,285	-55.4		30	23.3
175	31	13,127	-60.3		30	24.6
150	31	14,077	-65.2		30	24.3
125	31	15,173	-70.3		30	21.8
100	31	16,481	-75.7		30	16.1
80	31	17,763	-77.5		31	7.9
70	28	18,535	-75.8		32	4.6
60	27	19,435	-71.4		35	1.7
50	27	20,524	-66.9		07	1.1
40	27	21,892	-61.5		36	.8
30	26	23,696	-57.7		28	1.5
25	26	24,857	-55.5		28	3.3
20	26	26,286	-53.1		29	5.0
15	21	28,157	-51.0		28	5.9
10	18	30,840	-48.7		25	9.6
7						

LITTLE ROCK, AR — 1000 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	79	1.7	-3.5	32	1.5
1000	20	204	.1	-5.3	32	1.3
980	31	390	4.4	-6.3	28	5.4
900	31	1,031	3.9	-9.0	28	6.5
850	31	1,494	2.9	-11.1	28	7.8
800	31	1,984	1.1	-13.0	28	9.6
750	31	2,501	-.6	-15.1	28	11.3
700	31	3,050	-3.4	-17.8	28	12.9
650	31	3,633	-6.1	-20.7	28	14.6
600	31	4,255	-9.5	-25.5	28	16.5
550	31	4,922	-13.9	-29.0	28	18.8
500	31	5,639	-19.1	-34.0	27	21.7
450	31	6,411	-24.7	-38.5	27	24.0
400	31	7,257	-30.9	-43.8	27	26.7
350	31	8,194	-37.8	-46.1	27	30.6
300	30	9,237	-45.2		27	35.2
250	30	10,435	-52.0		27	42.2
200	30	11,862	-57.5		27	44.7
175	30	12,703	-59.0		27	43.7
150	30	13,666	-60.6		27	41.1
125	30	14,795	-62.8		27	34.9
100	30	16,161	-65.5		27	29.4
80	29	17,513	-66.8		27	22.1
70	29	18,363	-66.3		27	19.2
60	29	19,256	-65.7		27	15.6
50	29	20,273	-64.1		28	12.4
40	28	21,744	-62.6		28	10.9
30	27	23,528	-60.5		28	9.7
25	24	24,667	-59.4		28	10.8
20	24	26,070	-57.6		28	15.0
15	23	27,892	-56.0		27	16.9
10	16	30,519	-49.3		26	26.0
7	10	32,838	-46.0			

LONGVIEW, TX — 1007 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	124	4.0	.9	24	.4
1000	27	192	5.1	-1.6	26	1.1
980	31	599	7.4	-2.3	24	3.8
900	31	1,044	7.1	-4.7	25	4.6
850	31	1,513	6.1	-8.6	27	5.8
800	31	2,008	4.1	-10.3	27	7.6
750	31	2,531	1.9	-11.8	27	9.4
700	31	3,085	-.8	-15.4	27	11.4
650	31	3,673	-3.8	-18.9	27	12.9
600	31	4,301	-7.4	-22.6	27	15.0
550	31	4,973	-12.0	-27.2	27	16.3
500	31	5,695	-17.0	-32.3	27	19.3
450	31	6,477	-22.3	-36.4	26	22.8
400	31	7,332	-28.5	-41.2	26	28.0
350	31	8,279	-35.2	-47.0	26	33.3
300	31	9,334	-42.6		26	37.7
250	31	10,544	-50.5		26	43.4
200	31	11,974	-58.1		26	46.2
175	30	12,810	-60.8		26	43.4
150	30	13,764	-62.7		26	36.8
125	30	14,882	-65.1		27	32.9
100	30	16,229	-67.8		27	25.2
80	30	17,565	-69.5		27	17.8
70	30	18,369	-68.8		27	15.5
60	30	19,290	-67.3		27	13.7
50	30	20,395	-65.1		28	9.8
40	30	21,756	-62.8		28	7.9
30	29	23,553	-59.7		28	8.4
25	29	24,867	-58.7		27	12.0
20	29	26,107	-56.1		27	16.9
15	20	27,929	-54.4		27	22.5
10	12	30,554	-49.8			
7						

MCGRATH, AK — 991 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	103	-21.0	-23.8	35	.8
1000	6	178	-20.4	-23.1		
980	31	421	-14.9	-17.0	07	4.1
900	31	834	-10.4	-14.8	09	6.3
850	31	1,276	-8.3	-14.3	11	5.2
800	31	1,745	-10.0	-16.2	13	4.6
750	31	2,241	-12.7	-19.5	14	4.1
700	31	2,764	-16.2	-22.5	16	4.6
650	31	3,318	-19.8	-26.4	17	5.6
600	31	3,908	-23.7	-30.0	17	5.9
550	31	4,538	-27.9	-34.8	18	6.6
500	31	5,216	-32.8	-40.0	18	7.3
450	31	5,950	-37.9	-43.1	18	8.1
400	31	6,753	-43.2	-47.5	19	7.6
350	31	7,644	-48.5		20	8.4
300	30	8,637	-52.0		21	9.5
250	30	9,814	-52.1		21	10.5
200	30	11,269	-49.3		22	10.8
175	30	12,149	-47.8		23	10.9
150	30	13,167	-47.2		23	11.2
125	30	14,375	-46.9		23	11.6
100	30	15,854	-47.1		24	11.5
80	30	17,333	-46.6		24	11.8
70	30	18,219	-46.7		25	11.8
60	30	19,243	-46.6		25	13.1
50	30	20,453	-46.7		26	14.3
40	30	21,935	-46.4		26	14.8
30	29	23,850	-46.7		27	15.5
25	29	25,058	-47.3		28	16.7
20	29	26,586	-47.0		29	15.0
15	23	28,552	-46.7		29	14.1
10	15	31,445	-42.7		32	14.0
7						

MAJURO, MARSHALL IS. — 1009 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	3	28.2	23.8	06	6.4
1000	31	83	27.0	22.7	06	7.7
980	31	536	23.3	20.9	07	9.5
900	31	1,007	20.2	16.8	07	9.7
850	31	1,500	17.6	11.9	08	8.5
800	31	2,018	16.4	5.6	08	7.0
750	31	2,565	14.0	1.4	09	6.2
700	31	3,144	11.0	-3.3	09	6.0
650	31	3,759	7.7	-6.4	09	5.9
600	31	4,416	3.9	-9.1	10	6.8
550	31	5,117	.4	-14.5	10	7.6
500	31	5,876	-3.8	-19.4	09	8.9
450	31	6,701	-8.1	-23.9	08	9.4
400	31	7,607	-13.8	-28.4	08	8.1
350	31	8,611	-20.6	-35.6	07	6.9
300	31	9,731	-28.8	-44.1	08	4.1
250	31	11,008	-39.2	-52.4	11	2.9
200	31	12,496	-51.8		13	1.7
175	31	13,348	-58.7		09	2.0
150	31	14,298	-66.7		08	2.4
125	31	15,379	-74.9		08	4.1
100	31	16,646	-82.8		07	8.1
80	30	17,886	-81.8		08	7.7
70	30	18,645	-75.7		08	4.2
60	30	19,550	-70.3		09	2.5
50	30	20,645	-66.2		09	6.2
40	30	22,043	-62.0		10	15.0
30	29	23,817	-56.3		09	22.8
25	28	24,986	-52.9		09	24.3
20	27	26,438	-48.7		09	25.8
15	19	28,350	-43.5		09	19.3
10	7	31,082	-38.3			
7						

MEDFORD, OR — 976 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	401	-2.4	-2.9	34	.1
1000	31	137	20.6	17.1	07	3.1
980	31	580	18.8	15.2	08	4.9
900	31	1,044	16.4	11.9	09	2.9
850	31	1,529	14.7	7.1	12	1.8
800	31	2,041	12.6	3.9	16	1.7
750	31	2,581	10.2	.8	18	1.8
700	31	3,152	7.2	-3.8	19	1.6
650	31	3,759	4.2	-8.2	22	3.0
600	31	4,406	-.1	-13.6	23	5.3
550	31	5,100	-3.0	-19.8	24	6.6
500	31	5,848	-7.5	-24.3	24	8.1
450	31	6,661	-12.6	-29.2	24	10.6
400	30	7,550	-18.8	-34.9	25	13.6
350	30	8,533	-26.1	-41.5	25	14.3
300	30	9,626	-35.0	-48.9	26	15.5
250	30	10,871	-45.2		26	18.4
200	30	12,323	-57.0		27	20.5
175	29	13,158	-62.7		26	21.2
150	29	14,096	-67.5		26	21.8
125	29	15,182	-72.2		25	20.5
100	28	16,477	-76.8		26	18.4
80	27	17,749	-79.4		26	9.1
70	27	18,511	-77.0		26	6.2
60	27	19,409	-72.0		26	2.7
50	26	20,501	-64.8		27	1.2
40	24	21,877	-60.1		23	1.5
30	24	23,696	-55.3		07	1.5
25	23	24,863	-53.6		10	3.4
20	20	26,303	-50.9		08	1.3
15	17	28,184	-48.2		34	.4
10	5	30,879	-43.5			
7						

MERIDA, MEXICO — 1015 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	11	19.3	18.6	06	.5
1000	31	137	20.6	17.1	07	3.1
980	31	580	18.8	15.2	08	4.9
900	31	1,044	16.4	11.9	09	2.9
850	31	1,529	14.7	7.1	12	1.8
800	31	2,041	12.6	3.9	16	1.7
750	31	2,581	10.2	.8	18	1.8
700	31	3,152	7.2	-3.8	19	1.6
650	31	3,759	4.2	-8.2	22	3.0
600	31	4,406	-.1	-13.6	23	5.3
550	31	5,100	-3.0	-19.8	24	6.6
500	31	5,848	-7.5	-24.3	24	8.1
450	31	6,661	-12.6	-29.2	24	10.6
400	30	7,550	-18.8	-34.9	25	13.6
350	30	8,533	-26.1	-41.5	25	14.3
300	30	9,626	-35.0	-48.9	26	15.5
250	30	10,871	-45.2		26	18.4
200	30	12,323	-57.0		27	20.5
175	29	13,158	-62.7		26	21.2
150	29	14,096	-67.5		26	21.8
125	29	15,182	-72.2		25	20.5
100	28	16,477	-76.8		26	18.4
80	27	17,749	-79.4		26	9.1
70	27	18,511	-77.0		26	6.2
60	27	19,409	-72.0		26	2.7
50	26	20,501	-64.8		27	1.2
40	24	21,877	-60.1		23	1.5
30	24	23,696	-55.3		07	1.5
25	23	24,863	-53.6		10	3.4
20	20	26,303	-50.9		08	1.3
15	17	28,184	-48.2		34	.4
10	5	30,879	-43.5			
7						

MIAMI, FL — 1017 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	4	17.2	15.1	34	1.8
1000	31	151	18.6	15.0	03	2.7
980	31	591	16.9	13.3	07	3.5
900	31

RAWINSONDE DATA

Average monthly values

DECEMBER 1976

MONTERREY, MEXICO — 967 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	423	9.1	6.7	33	2.5
1000						
950	31	595	10.0	6.2	34	3.1
900	31	1,045	9.6	4.7	33	2.1
850	31	1,520	9.2	3.0	22	1.3
800	31	2,023	8.9	-.3	23	3.4
750	31	2,556	7.4	-2.3	25	6.4
700	31	3,122	4.4	-4.5	25	9.4
650	31	3,722	.6	-9.0	25	11.6
600	31	4,359	-3.4	-13.8	25	13.5
550	31	5,043	-7.4	-20.5	25	16.2
500	31	5,779	-12.0	-24.4	25	19.5
450	31	6,579	-16.7	-26.9	25	21.9
400	31	7,454	-22.4	-32.1	25	24.5
350	31	8,424	-29.3	-39.0	25	29.4
300	31	9,504	-37.6	-47.4	25	32.4
250	31	10,737	-47.1		25	36.7
200	31	12,180	-57.7		25	37.6
175	31	13,014	-62.1		25	35.8
150	31	13,957	-65.9		25	32.3
125	31	15,055	-69.0		25	28.0
100	31	16,377	-72.9		26	21.8
80	29	17,679	-74.5		26	16.5
70	29	18,457	-73.5		26	14.4
60	27	19,366	-71.6		26	10.2
50	23	20,430	-67.0		26	8.5
40	20	21,811	-62.8		27	8.5
30	20	23,605	-58.3		26	15.1
25	20	24,759	-56.1		26	18.6
20	18	26,185	-53.8		26	22.6
15	15	28,059	-52.5		26	
10	9	30,657	-52.3			
7						

MUNETT, MO — 967 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	438	-2.0	-5.4	25	1.0
1000						
950	31	578	.3	-6.6	26	2.8
900	31	1,013	1.2	-8.1	27	7.6
850	31	1,473	.5	-10.8	29	9.8
800	31	1,958	-.6	-12.8	29	11.4
750	31	2,473	-2.2	-15.3	29	13.1
700	31	3,018	-5.0	-18.2	29	14.6
650	31	3,598	-7.9	-20.9	29	15.7
600	31	4,216	-11.4	-25.3	29	17.5
550	31	4,877	-15.7	-28.8	28	19.4
500	31	5,589	-20.8	-33.2	28	21.6
450	31	6,360	-26.3	-37.7	28	22.7
400	31	7,201	-32.3	-42.4	28	25.0
350	31	8,136	-38.9	-46.4	28	27.1
300	31	9,181	-46.6		28	30.6
250	31	10,370	-53.8		27	35.2
200	31	11,788	-58.1		27	38.3
175	31	12,627	-58.8		27	37.2
150	31	13,598	-59.1		27	34.7
125	31	14,735	-61.4		27	29.7
100	31	16,116	-63.5		27	24.8
80	29	17,479	-65.2		28	21.9
70	29	18,293	-65.2		28	17.1
60	28	19,231	-64.5		28	13.7
50	23	20,348	-63.6		29	12.9
40	25	21,725	-62.6		28	8.4
30	18	23,520	-60.0		30	7.2
25	14	24,676	-59.9		30	6.4
20	14	26,073	-59.0		29	9.8
15	12	27,884	-57.5		29	11.3
10	7	30,419	-54.9			

NASHVILLE, TN — 998 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	180	-.5	-4.8	26	.6
1000	13	226	-2.1	-8.1	19	.9
950	31	575	1.2	-6.4	25	3.4
900	31	1,010	.8	-7.0	27	8.2
850	31	1,468	-.4	-10.9	28	9.5
800	31	1,951	-2.1	-11.6	28	11.4
750	31	2,462	-4.1	-13.2	28	13.6
700	31	3,004	-6.6	-18.0	27	16.5
650	31	3,580	-9.4	-20.7	28	18.6
600	31	4,196	-12.6	-24.9	28	21.0
550	31	4,855	-16.4	-30.1	28	23.5
500	31	5,566	-21.1	-34.3	27	26.9
450	31	6,336	-26.2	-39.4	27	30.4
400	31	7,178	-32.1	-43.0	27	33.6
350	31	8,111	-38.3	-46.2	27	37.3
300	31	9,153	-45.3		27	41.9
250	31	10,350	-52.0		27	44.5
200	31	11,776	-57.2		26	43.5
175	30	12,611	-58.0		26	40.5
150	30	13,579	-59.5		26	36.3
125	30	14,713	-61.9		26	33.6
100	29	16,082	-64.5		27	29.6
80	29	17,442	-65.6		27	21.2
70	28	18,253	-65.3		27	18.0
60	28	19,192	-65.1		27	16.7
50	26	20,305	-64.3		27	11.7
40	25	21,675	-62.6		27	10.6
30	25	23,460	-60.6		27	10.9
25	25	24,599	-59.1		27	12.0
20	25	26,003	-57.5		27	15.0
15	22	27,823	-54.8		26	18.5
10	15	30,435	-50.7		26	22.5
7	4	32,703	-49.1			

NOME, AK — 1004 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	5	-12.9	-18.7	24	4.1
1000	20	94	-11.8	-20.6	05	4.8
950	31	433	-10.5	-18.0	07	7.2
900	31	848	-11.6	-18.8	08	8.3
850	31	1,285	-12.5	-19.8	07	8.2
800	31	1,748	-13.4	-22.4	07	8.0
750	31	2,237	-15.4	-24.6	08	7.0
700	31	2,755	-18.3	-27.6	08	7.0
650	31	3,305	-21.6	-30.9	08	7.1
600	31	3,891	-25.1	-34.3	08	7.1
550	31	4,518	-29.3	-38.3	08	6.7
500	31	5,192	-34.2	-43.1	08	6.4
450	31	5,922	-39.1	-45.5	09	6.2
400	31	6,720	-44.7	-49.8	10	5.4
350	31	7,605	-50.0		12	4.2
300	31	8,601	-54.0		16	4.5
250	31	9,769	-54.3		19	5.0
200	31	11,210	-50.8		21	7.1
175	31	12,083	-49.8		22	8.3
150	30	13,089	-48.7		22	9.7
125	29	14,290	-48.2		23	11.3
100	29	15,762	-47.7		23	12.6
80	29	17,240	-47.7		23	13.9
70	28	18,123	-47.8		24	14.9
60	28	19,142	-47.0		24	15.9
50	28	20,350	-47.2		24	17.2
40	28	21,827	-47.4		25	18.3
30	27	23,725	-48.4		25	20.1
25	24	24,923	-49.3		26	22.0
20	20	26,420	-49.1		26	23.5
15	9	28,307	-51.3			

NORTH PLATTE, NE — 916 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	847	-7.5	-11.9	31	1.4
1000						
950	31	1,005	-2.9	-8.8	31	4.4
900	31	1,462	-.2	-9.2	32	10.1
850	31	1,946	-1.7	-12.2	31	11.9
800	31	2,457	-4.3	-14.5	31	13.8
750	31	2,998	-7.1	-17.6	31	15.5
700	31	3,573	-9.9	-19.1	30	17.2
650	31	4,186	-13.3	-23.1	30	18.1
600	31	4,844	-17.5	-28.4	31	19.4
550	31	5,551	-22.3	-33.1	30	19.4
500	31	6,317	-27.9	-37.0	31	20.2
450	31	7,152	-34.9	-42.7	30	21.9
400	31	8,075	-41.3	-46.7	30	22.6
350	31	9,103	-48.7		31	22.8
300	31	10,280	-55.6		29	24.6
250	31	11,689	-58.3		29	25.0
200	31	12,531	-58.2		29	24.6
175	31	13,504	-57.6		28	24.4
150	31	14,651	-59.0		28	22.0
125	31	16,045	-60.5		29	18.7
100	30	17,425	-62.2		29	16.3
80	29	18,248	-61.7		29	14.2
70	29	19,203	-61.9		29	12.2
60	29	20,330	-62.2		30	11.4
50	27	21,711	-61.8		31	9.8
40	27	23,503	-60.1		32	10.0
30	26	24,942	-59.6		33	9.1
25	22	26,050	-58.5		32	8.2
20	17	27,889	-56.4		32	7.3
15	10	30,521	-53.3			

OAKLAND, CA — 1020 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	6	6.0	2.9	07	.5
1000	31	166	10.3	1.4	05	1.1
950	31	594	11.9	-5.0	05	2.8
900	31	1,046	11.1	-8.2	04	2.3
850	31	1,520	9.1	-10.1	03	1.1
800	31	2,020	6.4	-12.3	35	.7
750	31	2,547	3.3	-15.1	30	1.1
700	31	3,103	.0	-17.2	29	1.9
650	31	3,692	-3.5	-21.0	30	2.3
600	31	4,320	-7.7	-24.4	30	2.3
550	31	4,991	-12.5	-28.7	29	2.7
500	31	5,711	-18.0	-33.2	31	3.8
450	31	6,489	-23.8	-38.3	30	4.6
400	31	7,328	-30.8	-44.2	30	4.3
350	31	8,273	-38.5	-48.7	31	6.0
300	31	9,311	-46.7		32	7.0
250	31	10,499	-54.8		31	8.0
200	31	11,906	-59.8		30	10.3
175	31	12,740	-59.6		29	12.4
150	31	13,704	-60.0		29	12.8
125	31	14,838	-61.7		29	13.9
100	31	16,214	-63.4		29	11.1
80	31	17,580	-64.4		30	8.6
70	31	18,398	-64.1		31	6.5
60	31	19,344	-63.2		34	5.7
50	31	20,467	-62.8		01	5.3
40	31	21,848	-61.0		03	7.0
30	31	23,643	-59.2		04	9.2
25	29	24,793	-58.4		04	9.6
20	28	26,197	-57.1		04	9.9
15	24	28,012	-55.7		03	9.8
10	13	30,614	-52.8			

OMAHA, NE — 969 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	403	-8.3	-11.7	30	1.6
1000	31	66	27.3	22.6	09	2.9
950	31	519	23.4	20.3	08	2.9
900	31	990	20.2	17.2	06	2.6
850	31	1,483	16.8	13.3	03	2.3
800	31	2,001	15.4	9.4	35	2.5
750	31	2,546	12.7	5.5	34	2.8
700	31	3,123	9.8	2.5	32	3.4
650	31	3,737	6.6	-.6	32	4.5
600	31	4,390	2.9	-4.7	30	3.9
550	31	5,091	-.8	-9.3	30	4.0
500	31	5,847	-4.8	-14.7	30	3.9
450	31	6,669	-9.2	-19.1	29	4.4
400	31	7,571	-14.9	-26.7	29	5.2
350	31	8,571	-21.6	-32.5	29	6.0
300	31	9,686	-29.8	-40.9	29	9.2
250	31	10,938	-40.1	-49.8	28	10.8
200	31	12,440	-52.7		28	13.6
175	31	13,289	-59.8		27	14.0
150	31	14,234	-67.5		26	13.4
125	31	15,313	-74.7		26	11.7
100	31	16,587	-81.3		26	7.4
80	31	17,832	-81.7		28	1.5
70	31	18,590	-77.0		09	2.8
60	29	19,495	-71.6		09	5.7
50	26	20,595	-65.6		08	9.4
40	25	21,973	-60.0		08	13.1
30	25	23,787	-55.9		09	17.8
25	25	24,957	-52.8		09	21.0
20	19	26,408	-48.8		09	23.0
15	13	28,294	-44.3		09	21.9
10	8	31,012	-40.2			

PAGO PAGO, AMERICAN SAMOA — 1007 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	5	28.6	23.8	09	2.9
1000	31	66	27.3	22.6	09	3.2
950	31	519	23.4	20.3	08	2.9
900	31	990	20.2	17.2	06	2.6
850	31	1,483	16.8	13.3	03	2.3
800	31	2,001	15.4	9.4	35	2.5
750	31	2,546	12.7	5.5	34	2.8
700	31	3,123	9.8	2.5	32	3.4
650	31	3,737	6.6	-.6	32	4.5
600	31	4,390	2.9	-4.7	30	3.9
550	31	5,091	-.8	-9.3	30	4.0
500	31	5,847	-4.8	-14.7	30	3.9
450	31	6,669	-9.2	-19.1	29	4.4
400	31	7,571	-14.9	-26.7	29	5.2
350	31	8,571	-21.6	-32.5	29	6.0
300	31	9,686	-29.8	-40.9	29	9.2
250	31	10,938	-40.1	-49.8	28	10.8
200	31	12,440	-52.7		28	13.6
175	31	13,289	-59.8		27	14.0
150	31	14,234	-67.5		26	13.4
125	31	15,313	-74.7		26	11.7
100	31	16,587	-81.3		26	7.4
80	31	17,832	-81.7		28	1.5
70	31	18,590	-77.0		09	2.8
60	29	19,495	-71.6		09	5.7
50	26	20,595	-65.6		08	9.4
40	25	21,973	-60.0		08	13.1
30	25	23,787	-55.9		09	17.8
25	25	24,957	-52.8		09	21.0
20	19	26,408	-48.8		09	23.0
15	13	28,294	-44.3		09	21.9
10	8	31,012	-40.2			

PEORIA, IL — 993 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	200	-8.1	-12.4	25	1.6
1000	5	237	-11.8	-15.2		
950	31	547	-5.4	-10.7	27	6.7
900	31	972	-4.8	-12.4	28	10.1
850	31	1,422	-5.1	-14.6	29	11.9
800	31	1,897	-6.8	-18.9	28	14.1
750	31	2,400	-8.4	-18.1	28	15.7
700	31	2,932	-10.9	-21.1	29	17.8
650	31	3,499	-13.7	-23.6	29	19.8
600	31	4,104	-16.6	-28.3	29	22.0
550	31	4,754	-20.6	-31.6	29	24.0
500	31	5,452	-25.2	-36.2	29	25.6
450	30	6,217	-30.0	-40.3	28	28.1
400	30	7,046	-35.8	-44.6	28	30.5
350	30	7,965	-42.2	-48.2	28	31.9
300	29	8,984	-48.4		28	34.5
250	29	10,168	-53.8		28	35.8
200	29	11,591	-55.8		28	37.1
175	29	12,441	-55.9		28	35.8
150	29	13,420	-56.8		28	33.7
125	29	14,574	-58.1		28	30.3
100	29	15,972	-60.4		28	25.1
80	28	17,360	-61.5		28	21.3
70	28	18,186	-62.1		28	18.7
60	28	19,138	-62.4		28	16.9
50	27	20,265	-62.1		28	13.4
40	25	21,642	-61.5		28	12.4
30	22	23,440	-61.0		29	10.7
25	21	24,586	-60.5		30	9.5
20	21	25,981	-59.5		29	9.3
15	15	27,831	-57.3		32	8.5
10	9	30,476	-54.1			

PITTSBURGH, PA — 973 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	29	359	-5.5	-11.2	29	3.3
1000						
950	31	546	-4.9	-9.9	25	6.0
900	31	970	-6.6	-11.5	27	9.8
850	31	1,419	-8.3	-15.1	27	13.1
800	31	1,885	-9.5	-17.2	27	15.3
750	31	2,383	-10.6	-18.6	27	17.5
700	31	2,912	-12.4	-20.2	28	20.5
650	31	3,476	-15.4	-23.2	28	22.5
600	31	4,078	-18.0	-26.5	28	25.7
550	31	4,723	-21.8	-30.4	27	28.3
500	31	5,419	-26.1	-34.9	27	30.9
450	31	6,177	-30.7	-40.6	27	34.2
400	31	7,005	-36.1	-44.5	27	37.4
350	31	7,910	-41.9	-47.3	27	41.9
300	31	8,943	-48.1		27	44.7
250	31	10,131	-53.3		27	46.2
200	31	11,560	-55.2		27	42.4
175	31	12,411	-55.5		26	38.9
150	31	13,392	-56.7		27	36.1
125	31	14,550	-58.7		26	32.0
100	31	15,945	-60.2		27	26.7
80	31	17,332	-61.6		27	22.6
70	24	18,162	-61.2		27	18.4
60	23	19,120	-62.8		27	16.6
50	23	20,245	-62.3		27	16.1
40	21	21,634	-61.4		28	14.2
30	21	23,456	-60.1		27	11.0
25	17	24,596	-59.4		27	11.9
20	15	26,013	-57.8		28	13.6
15	12	27,813	-56.3		26	17.2
10	6	30,401	-51.6			

PONAPE, CAROLINE IS. — 1004 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	39	27.7	23.9	07	3.3
1000	31	72	26.6	23.0	07	4.0
950	31	524	23.0	20.7	07	7.6
900	31	995	19.9	17.4	08	8.8
850	31	1,487	17.5	13.0	08	7.5
800	31	2,005	16.0	7.9	08	5.6
750	31	2,552	13.3	3.6	09	5.0
700	31	3,129	10.2	-.6	09	4.7
650	31	3,743	6.7	-4.0	08	5.2
600	31	4,396	3.3	-8.1	09	7.0
550	31	5,098	-.2	-12.9	09	9.8
500	31	5,855	-4.2	-18.0	09	9.9
450	31	6,679	-8.7	-21.6	09	9.7
400	31	7,582	-14.3	-27.9	09	9.7
350	29	8,588	-21.1	-34.4	09	9.4
300	29	9,704	-29.3	-41.7	10	7.5
250	29	10,980	-39.6	-49.9	11	6.9
200	28	12,467	-52.0		12	8.5
175	28	13,318	-59.2		11	8.3
150	28	14,266	-67.3		10	7.3
125	28	15,243	-75.5		08	8.5
100	28	16,608	-83.4		08	11.1
80	28	17,849	-81.2		09	7.5
70	28	18,610	-75.8		09	3.5
60	28	19,512	-70.6		10	1.3
50	27	20,604	-66.1		09	4.2
40	26	21,969	-62.5		09	15.5
30	25	23,770	-56.9		09	23.3
25	25	24,933	-53.9		09	25.5
20	24	26,339	-50.2		09	27.7
15	22	28,281	-43.7		09	20.2
10	10	31,029	-39.6			

PORTLAND, ME — 1009 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	20	-8.4	-14.1	28	2.0
1000	23	138	-7.3	-14.5	27	3.1
950	31	491	-7.8	-14.9	28	6.5
900	31	911	-8.8	-15.7	28	8.6
850	31	1,353	-10.1	-17.7	28	10.8
800	31	1,819	-11.3	-19.8	27	13.4
750	31	2,313	-12.7	-21.0	27	15.4
700	31	2,838	-14.6	-24.4	27	18.3
650	31	3,397	-17.2	-26.1	27	20.6
600	31	3,994	-19.9	-28.8	26	23.0
550	31	4,635	-23.5	-31.8	26	25.5
500	31	5,326	-27.6	-35.9	26	27.6
450	31	6,077	-32.4	-39.1	26	28.8
400	31	6,897	-38.0	-44.8	26	31.2
350	31	7,809	-43.4	-49.4	26	31.0
300	29	8,833	-48.7		26	35.6
250	29	10,021	-52.2		26	37.7
200	28	11,458	-54.0		26	28.6
175	28	12,315	-54.0		26	27.7
150	28	13,304	-54.4		25	26.2
125	28	14,467	-56.4		25	22.9
100	28	15,879	-58.0		25	21.1
80	28	17,280	-59.4		25	17.6
70	28	18,114	-60.3		25	16.7
60	28	19,074	-61.0		25	16.0
50	28	20,206	-60.9		25	14.6
40	26	21,595	-60.4		25	14.3
30	23	23,383	-60.2		26	16.4
25	23	24,519	-59.9		26	15.3
20	22	25,935	-58.5		26	14.9
15	21	27,771	-56.6		27	13.9
10	11	30,420	-54.5			

QUILLAYUTE, WA — 1012 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	28	58	5.6	4.5	14	1.2
1000	28	156	6.9	4.8	16	2.2
950	28	578	6.0	2.2	19	4.5
900	28	1,020	3.9	-1.1	22	4.0
850	28	1,483	2.1	-5.6	23	4.2
800	28	1,970	-.1	-9.5	24	4.8
750	28	2,485	-2.6	-12.8	25	8.5
700	28	3,029	-5.7	-16.4	25	10.0
650	28	3,607	-9.1	-20.5	26	11.2
600	28	4,222	-12.9	-22.6	26	12.6
550	28	4,881	-17.0	-26.8	26	14.4
500	28	5,589	-21.6	-32.0	26	15.4
450	28	6,351	-27.2	-36.6	26	14.1
400	28	7,194	-33.8	-42.7	26	12.3
350	28	8,119	-41.0	-47.5	26	10.3
300	28	9,146	-49.1		26	10.3
250	28	10,323	-56.1		27	11.3
200	28	11,725	-60.2		28	13.9
175	28	12,560	-58.9		28	13.8
150	27	13,531	-57.6		28	13.4
125	26	14,684	-57.7		28	13.4
100	26	16,093	-57.9		29	11.7
80	26	17,500	-57.8		31	9.2
70	25	18,345	-57.3		32	8.1
60	25	19,321	-56.7		33	7.4
50	25	20,478	-56.6		36	9.3
40	25	21,906	-55.9		01	12.8
30	23	23,739	-56.1		03	16.7
25	15	24,905	-55.0		04	19.5
20	14	26,371	-53.9			
15	6	28,256	-53.3			

RAPID CITY, SD — 904 MB

Standard pressure surface mb	No of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind: Direction tens of deg	Resultant Wind: Speed m p s
SFC	31	966	-4.4	-9.4	35	3.3
1000						
950	23	1,023	-4.1	-9.6	34	3.1

RAWINSONDE DATA

Average monthly values

DECEMBER 1976

* ST PAUL ISLAND, AK — 995 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	16	-3.7	-7.8	08	4.5
1000	31	65	-1.8	-6.1	07	4.4
950	31	372	-6.1	-7.7	05	4.6
900	31	793	-8.8	-11.3	07	3.0
850	31	1,234	-10.8	-16.0	07	1.5
800	31	1,698	-12.2	-18.3	13	1.0
750	31	2,188	-15.7	-21.9	17	1.5
700	31	2,705	-18.5	-26.9	18	1.5
650	31	3,255	-21.4	-30.6	19	2.3
600	31	3,841	-25.0	-35.7	18	3.3
550	31	4,468	-29.0	-40.0	17	3.6
500	31	5,143	-33.7	-44.5	18	4.0
450	31	5,875	-38.5	-45.7	20	5.1
400	31	6,675	-43.7	-47.8	20	5.8
350	31	7,566	-47.9		20	6.9
300	31	8,574	-50.5		19	7.1
250	31	9,762	-49.9		20	8.1
200	30	11,231	-47.8		22	8.5
175	30	12,114	-47.0		22	9.3
150	30	13,137	-46.3		20	9.7
125	30	14,350	-46.0		21	10.3
100	30	15,835	-46.1		21	10.7
80	30	17,320	-45.9		21	10.2
70	30	18,210	-45.6		21	9.6
60	30	19,238	-45.5		21	10.2
50	30	20,454	-45.2		21	10.1
40	29	21,937	-45.5		21	10.5
30	28	23,864	-45.0		21	9.3
25	27	25,080	-45.6		21	7.4
20	27	26,565	-46.5		21	6.4
15	25	28,497	-46.6		18	4.3
10	18	31,242	-46.3		11	6.6
7	8	33,775	-43.3			

SALEM, IL — 997 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	174	-4.5	-9.1	25	1.4
1000	31	207	-7.4	-12.1	23	.8
950	31	357	-1.6	-9.1	27	6.5
900	31	988	-1.7	-10.7	28	9.7
850	31	1,442	-2.6	-11.4	28	11.4
800	31	1,922	-4.3	-14.1	28	13.1
750	31	2,429	-6.3	-18.9	28	14.9
700	31	2,966	-8.4	-21.9	28	17.1
650	31	3,538	-11.4	-24.2	28	19.1
600	31	4,149	-14.3	-28.6	28	20.5
550	31	4,804	-18.4	-32.2	28	23.2
500	31	5,509	-23.2	-35.4	28	25.7
450	31	6,273	-28.2	-40.5	28	28.7
400	31	7,110	-34.2	-45..	28	30.6
350	31	8,034	-40.7	-48.4	27	32.4
300	31	9,066	-47.4		27	34.0
250	31	10,255	-53.1		27	36.3
200	30	11,681	-56.2		27	36.9
175	30	12,526	-56.9		27	34.6
150	30	13,504	-57.9		27	33.5
125	30	14,734	-59.5		27	29.5
100	30	16,238	-60.6		27	26.7
80	30	17,527	-60.0		27	20.6
70	30	18,356	-59.2		27	17.1
60	30	19,323	-59.1		28	14.8
50	30	20,469	-58.3		28	14.1
40	29	21,877	-58.5		28	11.4
30	28	23,696	-57.8		28	10.3
25	27	24,846	-57.0		28	10.0
20	26	26,256	-56.5		28	10.4
15	24	28,129	-54.4		27	12.1

SALEM, OR — 1015 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	41	2.0	.5	21	.7
1000	31	181	3.2	1.9	20	1.2
950	31	599	6.1	-.1	22	2.3
900	31	1,043	6.0	-4.2	24	3.6
850	31	1,510	4.2	-6.8	25	4.0
800	31	2,002	2.3	-10.3	26	4.9
750	31	2,521	.2	-14.5	27	6.0
700	31	3,070	-3.1	-17.2	27	7.2
650	31	3,653	-6.6	-20.0	27	8.4
600	31	4,273	-10.9	-24.4	27	9.9
550	31	4,937	-15.1	-27.6	27	11.3
500	31	5,650	-20.2	-31.2	27	12.6
450	31	6,423	-25.6	-35.9	27	13.2
400	31	7,266	-32.2	-41.9	27	14.2
350	31	8,189	-39.6	-47.7	28	14.5
300	31	9,222	-48.0		28	15.0
250	30	10,402	-56.1		29	16.7
200	31	11,796	-61.3		29	16.4
175	28	12,626	-60.1		29	18.9
150	28	13,591	-59.3		29	16.8
125	28	14,734	-59.5		30	15.7
100	28	16,129	-60.0		30	11.9
80	28	17,521	-60.0		32	9.6
70	28	18,356	-59.2		33	9.3
60	28	19,323	-59.1		35	8.8
50	28	20,469	-58.3		01	8.3
40	26	21,877	-58.5		02	11.3
30	25	23,696	-57.8		03	14.1
25	24	24,846	-57.0		03	16.6
20	24	26,256	-56.5		04	16.9
15	22	28,129	-54.4		05	17.6

SALT LAKE CITY, UT — 877 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	1,288	-5.8	-9.3	15	1.8
1000						
950						
900						
850	31	1,535	-.7	-8.8	17	1.7
800	31	2,020	-.3	-12.9	21	1.6
750	31	2,535	-2.6	-15.2	29	3.1
700	31	3,079	-5.3	-18.6	31	6.1
650	31	3,657	-8.2	-20.9	31	7.9
600	31	4,275	-11.6	-24.3	32	9.2
550	31	4,937	-15.7	-28.3	32	10.4
500	31	5,649	-20.7	-31.6	31	11.3
450	31	6,419	-26.5	-36.9	31	12.8
400	31	7,259	-33.1	-42.7	31	14.7
350	31	8,186	-40.3	-47.3	31	15.6
300	31	9,217	-48.7		31	16.5
250	31	10,395	-56.5		31	16.8
200	31	11,793	-61.1		30	18.4
175	31	12,622	-60.8		30	18.8
150	31	13,584	-59.7		29	18.2
125	31	14,719	-61.5		29	18.0
100	31	16,100	-62.3		30	15.5
80	29	17,479	-63.6		30	12.2
70	29	18,299	-63.1		31	10.7
60	29	19,250	-62.3		32	9.7
50	28	20,379	-61.5		34	7.9
40	28	21,762	-61.5		35	8.1
30	28	23,538	-60.4		36	9.6
25	22	24,681	-59.4		01	9.9
20	20	26,074	-58.0		01	9.2
15	15	27,896	-57.0		01	10.8

SAN DIEGO, CA — 1002 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	124	8.8	2.6	07	1.1
1000	26	148	12.6	-.1	07	1.0
950	31	375	14.7	-1.8	07	.7
900	31	1,030	12.4	-5.1	04	1.0
850	31	1,506	9.5	-8.3	07	1.4
800	31	2,007	7.1	-11.6	06	1.4
750	31	2,535	4.2	-14.4	04	1.8
700	31	3,092	1.1	-17.1	02	1.8
650	31	3,685	-2.4	-21.1	34	2.6
600	31	4,314	-6.8	-24.7	31	3.0
550	31	4,987	-11.7	-29.3	30	3.1
500	31	5,709	-17.3	-33.9	29	3.3
450	31	6,490	-23.1	-38.1	28	4.2
400	31	7,340	-30.1	-43.9	28	4.4
350	31	8,280	-37.5	-48.7	28	5.7
300	31	9,323	-45.2		28	9.3
250	31	10,522	-52.1		27	14.0
200	31	11,948	-57.5		26	20.1
175	31	12,791	-58.3		27	21.6
150	31	13,757	-59.9		27	20.7
125	31	14,889	-62.7		27	19.1
100	31	16,255	-65.3		28	14.8
80	31	17,607	-66.8		28	11.0
70	30	18,415	-67.0		29	8.1
60	30	19,349	-65.6		30	6.0
50	30	20,458	-64.3		32	4.6
40	29	21,830	-62.1		35	2.9
30	28	23,619	-60.2		36	4.2
25	27	24,762	-58.0		36	4.5
20	26	26,171	-56.3		33	3.8
15	25	28,009	-53.7		30	5.6
10	18	30,623	-50.2			

SAN JUAN, P. R. — 1015 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	6	21.0	19.4	11	2.3
1000	31	133	22.7	19.1	11	4.2
950	31	579	19.9	16.2	11	7.5
900	31	1,044	17.1	12.3	11	7.6
850	31	1,530	14.2	9.1	10	7.4
800	31	2,048	11.9	3.7	11	6.8
750	31	2,579	10.0	-4.4	11	6.5
700	31	3,151	7.9	-9.7	10	5.0
650	31	3,759	4.9	-12.9	10	3.8
600	31	4,407	1.2	-16.3	08	3.8
550	31	5,101	-2.9	-20.2	07	2.8
500	31	5,850	-7.4	-25.0	06	2.8
450	31	6,662	-12.8	-30.3	03	2.5
400	31	7,550	-19.3	-36.4	01	4.0
350	31	8,532	-26.3	-42.4	36	6.8
300	31	9,624	-35.0	-49.7	34	9.4
250	31	10,870	-44.5		33	12.3
200	31	12,329	-55.6		32	14.3
175	31	13,169	-60.8		31	16.6
150	30	14,115	-66.4		31	17.7
125	30	15,206	-71.8		31	17.3
100	30	16,505	-76.6		32	13.1
80	30	17,780	-78.9		35	6.5
70	30	18,544	-76.5		01	3.2
60	30	19,443	-71.7		05	2.9
50	30	20,538	-64.6		09	3.4
40	28	21,921	-59.6		10	3.2
30	24	23,733	-55.4		10	7.4
25	20	24,906	-52.6		09	9.0
20	20	26,358	-49.5		11	9.7
15	17	28,253	-47.8		11	6.6
10	16	30,959	-43.2		10	1.5

* SAULT STE MARIE, MI — 985 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	221	-13.0	-16.6	35	1.0
1000						
950						
900						
850						
800						
750						
700						
650						
600						
550						
500						
450						
400						
350						
300						
250						
200						
175						
150						
125						
100						
80						
70						
60						
50						
40						
30						
25						
20						
15						
10						
7						

SPOKANE, WA — 936 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	726	-2.6	-3.9	16	1.3
1000						
950						
900	31	1,036	-.2	-3.8	20	3.6
850	31	1,494	-.1	-8.0	24	5.6
800	31	1,979	-1.2	-11.6	26	7.2
750	31	2,492	-3.3	-14.6	26	8.1
700	31	3,035	-5.9	-17.3	27	9.4
650	31	3,612	-9.0	-21.8	28	11.2
600	31	4,227	-12.9	-25.3	29	13.5
550	31	4,885	-17.1	-28.2	29	15.5
500	31	5,594	-21.7	-33.7	29	17.2
450	31	6,362	-27.0	-37.4	29	19.2
400	31	7,200	-33.3	-43.1	29	20.7
350	31	8,127	-40.5	-47.4	29	22.3
300	30	9,163	-48.8		29	24.4
250	30	10,338	-56.9		30	25.4
200	30	11,732	-61.5		29	24.4
175	30	12,562	-60.3		29	21.8
150	30	13,527	-58.5		30	19.8
125	30	14,673	-58.7		30	17.5
100	30	16,074	-59.0		31	15.1
80	30	17,471	-59.8		31	12.0
70	30	18,307	-58.6		32	12.0
60	30	19,278	-57.8		34	9.8
50	30	20,432	-57.4		35	10.7
40	28	21,843	-57.3		01	11.9
30	28	23,690	-56.4		02	16.4
25	28	24,849	-56.1		03	17.8
20	28	26,268	-56.2		03	19.2
15	27	28,099	-55.1		04	21.2
10	25	30,869	-53.1			

TAMPA BAY, FL — 1017 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	8	11.7	10.1	02	1.3
1000	31	156	13.8	9.2	04	2.5
950	31	589	13.6	7.0	06	1.7
900	31	1,044	12.6	3.4	25	1.3
850	31	1,523	11.3	-.5	26	4.3
800	31	2,028	9.5	-4.3	26	6.8
750	31	2,562	7.1	-7.5	26	9.7
700	31	3,126	4.2	-11.1	26	12.0
650	31	3,726	1.1	-12.3	26	14.6
600	31	4,366	-2.6	-13.8	26	17.5
550	31	5,051	-6.5	-17.3	26	20.0
500	31	5,790	-11.2	-22.8	26	22.7
450	31	6,590	-16.2	-28.6	26	25.1
400	31	7,467	-22.0	-33.6	26	28.4
350	31	8,439	-29.2	-38.9	26	31.0
300	31	9,519	-37.4	-46.7	27	35.5
250	31	10,751	-47.5		27	38.4
200	30	12,191	-58.4		27	43.3
175	30	13,021	-63.2		27	42.5
150	30	13,960	-66.7		27	41.6
125	30	15,053	-70.0		27	35.4
100	30	16,371	-72.8		27	28.8
80	30	17,673	-74.1		27	20.3
70	30	18,453	-73.3		27	18.5
60	30	19,361	-70.3		27	13.1
50	30	20,462	-64.3		26	8.6
40	28	21,840	-60.6		26	9.9
30	24	23,648	-56.7		26	15.5
25	24	24,804	-55.4		26	13.0
20	24	26,240	-51.8		27	14.1
15	22	28,110	-50.4		26	18.1
10	12	30,737	-47.2		26	28.0

TOPEKA, KS — 987 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	268	-6.4	-9.8	30	1.6
1000						
950						
900						
850						
800						
750						
700						
650						
600						
550						
500						
450						
400						
350						
300						
250						
200						
175						
150						
125						
100						
80						
70						
60						
50						
40						
30						
25						
20						
15						
10						
7						

TRUK, CAROLINE IS. — 1010 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	2	28.3	24.1	06	4.2
1000	31	88	27.5	23.4	06	5.2
950	31	542	23.9	20.8	08	7.6
900	31	1,014	21.1	16.1	08	7.9
850	31	1,508	18.4	11.0	08	6.8
800	31	2,027	16.3	6.7	08	5.9
750	31	2,574	13.8	2.5	08	5.8
700	31	3,153	10.8	-1.2	08	5.7
650	31	3,768	7.7	-5.7	08	5.9
600	31	4,424	4.0	-8.8	09	7.5
550	31	5,126	.2	-12.6	09	8.6
500	31	5,885	-3.7	-17.1	09	9.1
450	30	6,710	-8.3	-21.7	09	10.1
400	30	7,615	-13.8	-28.1	09	10.3
350	30	8,619	-20.8	-34.3	09	9.7
300	30	9,736	-29.6	-42.9	09	8.5
250	30	11,010	-39.8	-50.4	10	9.4
200	29	12,493	-52.4		10	10.0
175	29	13,343	-59.4		10	9.1
150	29	14,290	-67.3		10	8.3
125	29	15,368	-75.4		10	9.8
100	29	16,631	-83.2		09	12.6
80	28	17,873	-81.1		09	8.1
70	28	18,634	-75.6		09	3.3
60	28	19,538	-70.9		09	2.2
50	28	20,637	-65.6		09	5.6
40	24	22,006	-61.0		09	14.7
30	21	23,812	-55.8		09	22.9
25	18	24,977	-53.0		09	24.9
20	16	26,428	-49.1		09	27.4
15	13	28,334	-44.3		09	21.3
10	11	31,084	-40.4			
7						

* TUCSON, AZ — 926 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	789	6.1	-4.2	14	3.3
1000						
950						
900						
850	31	1,028	10.5	-5.2	12	5.0
800	31	1,503	8.8	-6.9	12	4.1
750	31	2,002	6.0	-8.2	13	2.4
700	31	2,528	3.2	-12.3	15	1.0
650	31	3,083	1.0	-16.8	30	1.0
600	31	3,673	-3.3	-20.2	30	2.7
550	31	4,302	-7.3	-24.2	30	3.9
500	31	4,974	-11.8	-28.2	29	4.6
450	31	5,696	-17.1	-33.5	29	6.2
400	31	6,477	-23.0	-37.7	29	7.9
350	31	7,329	-29.7	-43.1	29	9.3
300	31	8,270	-36.8	-48.9	28	11.2
250	31	9,334	-45.7		29	15.0
200	31	10,523	-50.7		27	22.8
175	31	11,956	-56.3		26	27.5
150	31	12,861	-57.8		27	27.7
125	31	13,769	-59.9		26	25.2
100	31	14,899	-63.3		27	23.1
80	31	16,260	-66.4		27	19.3
70	31	17,003	-68.1		28	14.0
60	31	18,407	-67.4		28	11.0
50	31	19,341	-65.7		28	6.9
40	28	20,453	-64.3		30	5.7
30	28	21,824	-62.7		30	5.1
25	27	23,611	-59.6		29	5.1
20	24	24,753	-57.4		29	6.9
15	22	26,165	-56.3		29	8.7
10	15	28,013	-54.5		28	14.1

* VANDENBERG AFB, CA — 1006 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	100	8.8	2.1	07	1.0
1000	29	154	12.3	2.2	05	1.4
950	31	583	14.9	-3.4	02	1.3
900	31	1,039	13.2	-6.6	03	.5
850	31	1,517	10.5	-9.4	09	.9
800	31	2,019	7.8	-12.0	07	1.2
750	31	2,548	4.7	-14.3	06	.8
700	31	3,106	1.1	-17.4	35	.7
650	31	3,698	-2.6	-20.9	32	.9
600	31	4,327	-6.8	-24.7	32	1.3
550	31	5,000	-11.7	-29.1	29	2.2
500	31	5,722	-17.3	-32.8	28	2.6
450	31	6,503	-23.3	-37.5	29	3.0
400	31	7,353	-30.1	-43.5	29	3.9
350	31	8,292	-37.5	-49.4	29	4.3
300	31	9,334	-45.7		29	5.7
250	31	10,524	-53.3		29	6.9
200	31	11,942	-58.1		27	12.1
175	31	12,784	-57.9		27	13.5
150	31	13,753	-58.9		27	13.9
125	31	14,890	-61.6		27	13.4
100	31	16,273	-64.3		28	11.6
80	31	17,633	-65.6		28	8.2
70	31	18,445	-65.1		29	5.7
60	31	19,387	-64.1		31	4.4
50	31	20,507	-63.1		34	3.7
40	31	21,886	-61.5		01	4.4
30	31	23,678	-59.0		02	5.4
25	31	24,825	-57.9		02	4.6
20	31	26,235	-56.3		35	4.7
15	31	28,070	-54.3		35	5.4
10	21	30,675	-51.4		29	7.9
7	12	33,031	-46.6			

VICTORIA, TX — 1015 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	33	7.8	5.5	35	2.0
1000	31	159	10.1	4.6	01	1.8
950	31	586	10.1	3.7	18	.7
900	31	1,036	9.8	.7	22	2.6
850	31	1,509	8.3	-2.2	23	4.8
800	31	2,009	6.9	-5.7	25	6.1
750	31	2,538	5.0	-9.1	26	7.6
700	31	3,098	2.0	-12.1	26	9.5
650	31	3,692	-1.3	-15.2	26	11.5
600	31	4,326	-5.2	-18.7	26	13.8
550	31	5,004	-9.3	-22.1	25	16.0
500	31	5,735	-13.8	-25.9	25	19.3
450	31	6,528	-19.0	-30.9	25	23.0
400	31	7,396	-24.4	-35.0	25	27.7
350	31	8,359	-31.1	-40.7	25	33.1
300	31	9,430	-39.3	-46.6	26	38.3
250	31	10,655	-48.3		26	45.1
200	30	12,094	-57.7		26	45.2
175	30	12,929	-61.5		26	44.4
150	30	13,878	-64.5		26	41.3
125	30	14,985	-67.7		26	35.9
100	29	16,317	-71.0		27	27.7
80	29	17,630	-72.7		27	20.0
70	29	18,409	-71.7		27	16.2
60	29	19,266	-68.7		27	12.3
50	29	20,242	-66.0		27	9.7
40	28	21,295	-61.8		27	10.8
30	28	23,592	-58.5		27	12.7
25	28	24,743	-56.6		27	17.2
20	28	26,167	-54.7		27	19.7
15	26	28,021	-53.0		26	26.1

* WAKE IS., PACIFIC AREA — 1014 MB

Standard pressure surface mb	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg	Resultant Wind Speed m p s
SFC	31	5	26.4	21.7	08	4.3
1000	31	129	24.3	19.8	08	5.0
950	31	377	20.7	17.8	08	5.3
900	31	1,043	17.7	13.4	08	4.8
850	31	1,530	15.3	5.2	08	4.2
800	31	2,044	14.4	-1.4	07	3.3
750	31	2,587	12.4	-8.0	06	2.2
700	31

RAWINSONDE DATA

Average monthly values

DECEMBER 1976

Standard pressure surface (mb)	No. of observations	Data	Temperature (°C)	Dew Point (°C)	Resultant Wind Direction (deg.)	Resultant Wind Speed (kts)
WALLOPS ISLAND, VA NASA — 1017 MB						
SFC	31	4	.6	-3.3	31	2.9
1000	28	136	1.9	-5.4	29	4.0
950	31	552	.7	-7.1	28	7.9
900	31	985	-.9	-9.2	28	9.5
850	31	1,440	-2.5	-12.0	28	11.6
800	31	1,921	-3.1	-13.9	27	13.4
750	31	2,431	-4.8	-15.0	27	15.5
700	31	2,972	-6.9	-17.6	27	18.7
650	31	3,547	-9.6	-20.6	27	21.2
600	31	4,161	-13.1	-24.2	27	23.0
550	31	4,822	-16.8	-28.9	26	27.7
500	31	5,529	-21.1	-33.9	26	30.8
450	31	6,300	-26.2	-37.2	26	35.5
400	31	7,142	-32.1	-42.7	25	39.8
350	31	8,075	-38.4	-46.5	26	43.2
300	31	9,117	-45.3		26	46.3
250	31	10,315	-52.3		26	50.4
200	31	11,742	-56.9		26	52.1
175	30	12,587	-57.4		26	48.4
150	30	13,560	-58.5		27	44.9
125	29	14,697	-60.3		26	37.4
100	28	16,078	-62.3		26	31.1
80	27	17,458	-63.2		27	26.4
70	27	18,279	-63.1		27	22.6
60	27	19,229	-62.7		26	19.9
50	26	20,355	-61.6		26	16.8
40	26	21,740	-60.8		26	15.7
30	24	23,533	-59.3		26	17.3
25	23	24,683	-58.3		26	18.8
20	23	26,091	-57.2		26	22.1
15	22	27,922	-55.2		26	24.4
10	18	30,537	-51.3		26	33.9
7	9	32,876	-46.9			
WASHINGTON DULLES INT. AP — 1007 MB						
SFC	31	89	-3.6	-9.0	28	1.8
1000	28	184	-2.8	-10.3	25	2.6
950	31	546	-1.8	-10.4	27	6.6
900	31	975	-3.5	-11.4	28	8.7
850	31	1,428	-5.2	-13.4	28	11.0
800	31	1,902	-5.6	-14.5	28	13.3
750	31	2,407	-6.8	-16.7	28	15.4
700	31	2,943	-9.6	-18.3	27	17.8
650	31	3,514	-11.9	-21.2	27	20.0
600	31	4,123	-15.3	-24.8	27	22.4
550	31	4,776	-18.9	-29.4	27	25.3
500	31	5,480	-23.3	-34.1	27	28.6
450	31	6,244	-28.2	-37.8	27	32.2
400	31	7,079	-33.9	-43.8	27	35.6
350	31	8,005	-40.5	-46.7	26	37.9
300	31	9,039	-46.6		26	40.8
250	31	10,230	-53.2		26	44.9
200	31	11,659	-56.6		26	47.7
175	30	12,506	-57.1		26	41.1
150	30	13,480	-57.7		26	36.9
125	29	14,624	-59.6		26	30.7
100	28	16,012	-61.9		26	28.3
80	29	17,387	-63.6		26	23.2
70	28	18,204	-63.4		26	17.9
60	27	19,152	-62.5		27	15.7
50	26	20,286	-62.5		26	15.4
40	25	21,677	-61.4		26	14.8
30	24	23,470	-60.5		27	15.6
25	23	24,618	-59.2		26	16.5
20	23	26,021	-57.7		26	16.5
15	21	27,839	-55.9		26	19.4
10	10	30,429	-54.0			
MAYCROSS, GA — 1014 MB						
SFC	31	44	6.3	3.6	31	1.0
1000	31	161	7.9	2.4	35	1.6
950	31	582	8.6	.8	31	3.3
900	31	1,029	8.0	-3.7	29	4.3
850	31	1,500	7.2	-6.1	28	8.0
800	31	1,998	5.8	-8.7	28	10.6
750	31	2,524	3.6	-10.6	27	13.6
700	31	3,082	.9	-13.1	26	16.9
650	31	3,674	-2.3	-16.0	26	18.7
600	31	4,305	-6.2	-19.7	26	20.9
550	31	4,981	-10.3	-23.7	25	23.0
500	31	5,709	-14.7	-26.9	26	26.6
450	31	6,499	-19.5	-31.8	26	29.5
400	31	7,365	-25.2	-36.2	26	33.1
350	31	8,324	-31.7	-44.9	26	36.8
300	31	9,393	-39.7	-47.4	26	42.3
250	31	10,614	-49.1		27	49.4
200	31	12,046	-58.5		27	51.7
175	30	12,879	-62.8		27	50.2
150	31	13,827	-64.1		27	44.8
125	29	14,935	-67.2		27	41.0
100	28	16,268	-70.2		26	32.7
80	29	17,590	-70.8		26	24.2
70	28	18,383	-69.7		26	19.7
60	27	19,305	-68.4		26	18.7
50	27	20,410	-64.6		27	14.2
40	26	21,787	-61.9		26	13.8
30	26	23,591	-58.4		26	14.5
25	25	24,735	-56.6		26	17.7
20	25	26,158	-54.4		26	23.0
15	24	28,008	-52.7		26	26.1
10	21	30,649	-49.2		26	38.5
7	7	33,036	-43.5			
WINNEMUCCA, NV — 874 MB						
SFC	31	1,312	-10.6	-17.1	16	.8
1000	31	1,412	-10.4	-17.1	16	.8
950	31	1,481	-10.3	-17.1	16	.8
900	31	1,532	1.0	-9.6	15	.9
850	31	2,021	2.0	-11.7	26	.8
800	31	2,540	.3	-15.7	29	1.9
750	31	3,090	-2.3	-18.9	31	3.3
700	31	3,675	-5.5	-20.9	31	5.1
650	31	4,298	-9.6	-23.8	30	6.2
600	31	4,965	-14.1	-27.2	30	5.9
550	31	5,681	-19.3	-32.4	30	7.2
500	31	6,456	-24.9	-36.8	30	8.2
450	31	7,300	-31.6	-42.5	31	8.6
400	31	8,233	-39.1	-47.1	31	9.9
350	31	9,269	-47.5		31	10.5
300	31	10,450	-56.3		31	11.1
250	31	11,848	-61.1		30	15.6
200	31	13,640	-59.8		30	16.3
175	31	14,777	-60.7		30	15.1
150	29	16,164	-62.2		30	13.7
125	26	17,540	-62.6		31	10.0
100	25	18,367	-61.6		32	8.6
80	24	19,324	-61.2		34	7.5
70	21	20,468	-61.1		35	7.6
60	19	21,865	-60.6		02	9.1
50	17	23,662	-58.6		03	12.0
40	15	24,825	-57.8		03	12.5
30	13	26,237	-58.4		02	11.0
WINSLOW, AZ — 855 MB						
SFC	31	1,498	-7.5	-11.8	1	.8
1000	31	1,498	-7.5	-11.8	1	.8
950	31	1,498	-7.5	-11.8	1	.8
900	26	1,547	-4.0	-11.9	35	.5
850	31	2,019	1.8	-12.0	30	1.3
800	31	2,539	.9	-15.1	36	2.4
750	31	3,091	-1.7	-17.5	35	3.4
700	31	3,677	-4.9	-21.5	34	3.8
650	31	4,302	-8.5	-25.1	33	4.6
600	31	4,971	-13.0	-29.8	33	5.6
550	31	5,690	-18.4	-34.3	31	6.8
500	31	6,467	-24.4	-39.2	32	7.0
450	31	7,314	-31.0	-44.7	32	7.7
400	31	8,250	-38.1	-48.2	32	9.6
350	31	9,290	-46.1		32	10.6
300	31	10,483	-53.1		29	9.6
250	31	11,903	-57.6		28	11.1
200	31	13,712	-59.4		27	11.0
175	31	12,745	-58.6		28	10.2
150	31	14,848	-61.9		28	10.2
125	31	16,218	-60.1		28	12.2
100	31	17,572	-60.5		29	13.3
80	31	19,316	-65.1		30	7.9
70	30	20,434	-64.6		31	5.8
60	28	21,803	-62.6		33	5.3
50	26	23,588	-60.2		35	5.0
40	24	24,726	-58.9		36	5.8
30	22	26,131	-57.2		36	5.7
25	18	27,943	-56.5		35	7.2
20	6	30,499	-54.7			
YAKUTAT, AK — 1006 MB						
SFC	27	12	.9	-.5	11	2.2
1000	21	92	2.4	.3	11	2.2
950	27	474	.8	-1.5	14	4.1
900	27	906	-2.1	-3.5	16	4.8
850	27	1,358	-5.4	-7.2	18	5.0
800	27	1,832	-8.4	-10.6	18	5.3
750	27	2,330	-11.4	-18.3	19	5.7
700	27	2,856	-14.8	-24.1	21	6.5
650	27	3,413	-17.8	-27.3	22	7.7
600	27	4,008	-21.8	-30.0	22	9.0
550	27	4,643	-26.3	-33.7	23	10.9
500	27	5,325	-31.2	-39.3	24	13.7
450	27	6,064	-35.9	-43.3	24	15.6
400	27	6,874	-41.1	-46.6	24	18.5
350	27	7,773	-46.8		25	19.6
300	27	8,780	-51.6		25	20.4
250	27	9,958	-52.8		25	18.9
200	27	11,405	-50.9		26	17.1
175	26	12,275	-50.6		26	16.7
150	25	13,279	-50.7		26	15.5
125	25	14,468	-49.8		26	15.8
100	24	15,927	-50.5		27	14.9
80	20	17,361	-50.3		27	13.7
70	20	18,232	-50.2		28	12.7
60	20	19,239	-50.7		29	13.4
50	20	20,426	-51.2		29	13.1
40	19	21,890	-51.1		30	13.0
30	19	23,758	-51.9		31	13.0
25	17	24,935	-53.5		32	15.3
20	15	26,390	-53.5		32	13.5
15	11	28,249	-52.5		33	16.7
10	5	31,361	-44.7			
YAP, CAROLINE IS. — 1008 MB						
SFC	31	14	27.4	24.4	09	3.6
1000	31	83	26.3	23.7	09	4.7
950	31	536	23.3	21.0	09	7.6
900	27	1,007	20.7	16.8	09	7.8
850	31	1,501	18.2	13.4	09	7.3
800	31	2,020	16.0	9.2	09	7.0
750	31	2,567	13.4	4.4	09	6.7
700	31	3,145	10.3	-.3	09	6.5
650	31	3,759	6.9	-2.6	09	6.5
600	31	4,413	3.3	-7.3	09	6.6
550	31	5,114	-.5	-11.1	11	7.3
500	31	5,871	-4.6	-16.5	10	8.4
450	31	6,693	-9.3	-20.8	10	9.6
400	31	7,595	-14.8	-28.6	09	9.6
350	31	8,598	-21.7	-35.5	09	9.1
300	31	9,709	-30.0	-42.4	09	8.5
250	31	10,980	-40.4	-50.3	09	7.9
200	31	12,460	-53.0		10	8.0
175	31	13,308	-60.0		10	9.3
150	31	14,252	-68.0		09	9.9
125	31	15,327	-75.8		10	11.6
100	31	16,592	-82.0		10	11.1
80	31	17,834	-82.7		10	7.5
70	31	18,589	-77.2		08	5.5
60	31	19,488	-71.3		08	4.7
50	31	20,581	-66.1		09	6.6
40	30	21,948	-62.0		09	12.6
30	28	23,758	-56.3		09	21.2
25	28	24,926	-52.9		09	22.2
20	26	26,374	-49.0		09	22.8
15	24	28,282	-45.7		09	21.1
10	17	30,999	-43.6		25	1.9
YUCCA FLAT, NV — 885 MB						
SFC	30	1,198	-5.5	-13.9	31	.9
1000	30	1,522	5.6	-12.2	01	3.4
950	30	2,016	4.2	-14.1	04	2.4
900	30	2,539	2.3	-15.8	04	1.3
850	30	3,094	-.3	-18.1	35	1.0
800	30	3,682	-4.0	-21.0	33	1.9
750	30	4,309	-8.2	-25.0	33	3.1
700	30	4,979	-12.6	-29.3	31	4.5
650	30	5,698	-18.1	-33.5	31	5.3
600	30	6,476	-24.2	-38.1	31	5.7
550	30	7,323	-31.1	-43.6	31	6.1
500	30	8,258	-38.7	-47.9	31	7.6
450	30	9,294	-47.1		31	8.6
400	30	10,480	-54.9		30	9.4
350	29	11,891	-59.0		28	12.9
300	29	12,778	-59.1		28	14.0
250	29	13,693	-60.1		28	14.2
200	28	14,827	-61.7		28	13.9
175	28	16,201	-63.7		29	13.1
150	27	17,563	-65.0		29	10.5
125	27	18,378	-64.9		30	9.0
100	26	19,322	-64.4		32	7.0
80	26	20,440	-63.3		33	6.2
70	26	21,818	-61.5		35	5.6
60	26	23,609	-59.9		01	5.1
50	25	24,750	-59.2		01	6.3
40	23	26,153	-57.2		02	7.2
30	24	27,992	-55.0		02	7.7
25	5	30,599	-54.0			

SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun. DECEMBER 1976

ALBUQUERQUE, NM

Date	Sun's zenith distance: A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass: 4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
1	----	----	----	1.37	1.41	1.36	1.24	1.14	1.03
2	1.06	1.15	1.25	1.40	1.43	1.39	1.16	1.06	1.00
3	1.07	1.19	1.29	1.43	1.43	1.43	1.27	1.19	1.07
4	1.05	1.13	1.25	1.35	1.37	1.35	1.21	1.09	.96
6	.97	1.09	1.20	----	----	----	----	----	----
8	1.07	1.16	1.28	1.36	1.39	1.38	1.26	1.20	1.09
10	----	----	----	----	----	----	1.20	1.06	.95
11	1.03	1.15	1.26	1.43	1.43	1.40	1.30	1.18	1.08
12	1.09	1.19	1.31	1.44	1.44	1.42	1.27	1.16	1.10
13	1.08	1.19	1.26	1.40	1.41	1.36	1.25	1.08	1.00
14	(1.07)	(1.17)	(1.21)	(1.38)	1.45	(1.29)	(1.25)	(1.17)	(1.04)
15	1.03	1.16	----	1.43	1.43	1.43	1.25	1.12	.98
16	1.05	1.17	1.28	1.44	1.44	1.42	1.27	1.18	1.08
17	1.11	1.20	1.28	1.45	1.44	1.44	1.26	1.11	1.03
18	1.01	1.11	1.21	1.35	1.39	1.35	1.21	1.09	.98
19	.95	1.11	----	----	----	----	----	----	----
20	.96	1.08	1.21	1.37	1.39	1.37	1.18	1.00	.89
21	.84	.95	1.10	1.27	1.32	1.33	1.16	1.05	.96
22	1.03	1.16	1.29	1.42	1.45	1.43	1.26	1.13	1.01
23	1.08	1.18	1.29	----	----	----	----	----	----
24	1.04	1.12	1.28	1.41	1.45	1.42	----	1.08	.96
25	1.08	1.18	1.30	1.43	1.45	1.47	1.32	1.22	1.10
26	----	1.19	1.28	----	----	----	----	----	----
27	1.08	(1.16)	(1.32)	----	----	----	----	----	----
28	----	----	----	----	1.49	1.47	1.13	1.21	1.11
29	1.15	1.25	(1.33)	1.49	1.50	1.48	----	----	----
30	----	----	1.15	1.33	1.34	1.29	1.07	----	----
Averages	1.04	1.15	1.25	1.40	1.42	1.40	1.22	1.12	1.02

BLUE HILL OBSERVATORY, MA

Date	Sun's zenith distance: A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass: 4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
1	.81	.89	.96	----	1.04	----	.94	.82	.75
3	.86	.97	1.04	----	1.11	----	1.00	.90	.82
9	.80	.90	.96	----	1.10	----	1.04	.94	.85
13	.69	----	.94	----	----	----	.97	----	.81
18	(.70)	(.79)	(.84)	----	----	----	----	(.88)	(.85)
22	.87	.90	1.05	----	----	----	----	----	----
24	.69	.78	.84	----	1.06	----	1.00	.89	.80
27	.87	.95	1.03	----	1.11	----	1.05	.95	.90
30	.81	.90	.98	----	1.06	----	.96	.88	.76
Averages	.80	.90	.98	----	1.08	----	.99	.90	.81

MADISON, WI

	Air mass: 4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
2	S1.06	S1.15	S1.24	----	S1.35	----	----	----	----
4	S .88	S .99	S1.11	----	S1.19	----	----	----	----
8	S .94	S1.04	S1.18	----	----	----	S1.15	S1.01	----
9	----	----	----	----	I .99	----	I .83	I .68	I .60
18	I .67	I .72	I .90	----	I1.01	----	----	----	----
19	----	----	----	----	I1.04	----	I .96	I .76	I .47
21	S1.01	S1.11	S1.22	----	S1.28	----	S1.22	S1.07	S .99
23	S .95	S1.05	----	----	----	----	----	----	----
30	----	----	M1.02	----	M1.17	----	M1.14	M1.04	M .95
31	S .97	S1.08	----	----	----	----	----	----	----
Averages	.93	1.02	1.11	----	1.15	----	1.06	.91	.75

MAUNA LOA OBSERVATORY, HA

	Air mass: 3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
NO DATA RECEIVED									

OMAHA, NE

	Air mass: 4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
NO DATA RECEIVED									

TUCSON, AZ

	Air mass: 4.64	3.71	2.78	1.86	*	1.86	2.78	3.71	4.64
1	1.00	1.11	1.24	1.40	1.45	1.39	1.23	1.15	1.02
2	1.11	1.20	1.31	1.44	1.50	1.46	1.31	1.20	1.11
3	1.12	1.22	1.32	1.46	1.51	1.43	1.29	1.17	1.05
4	1.05	1.16	1.27	1.42	1.44	1.40	1.23	1.11	1.01
5	1.05	1.16	----	----	----	1.36	1.20	1.11	.99
6	.94	1.03	1.15	1.33	1.40	1.37	1.23	1.07	.97
7	1.06	1.15	1.29	1.43	1.48	1.40	1.26	1.12	1.01
8	1.04	1.13	1.24	1.37	1.43	1.41	1.24	----	----
9	----	----	----	1.38	----	----	----	1.16	1.06
10	.96	1.07	1.19	1.34	1.36	1.31	1.12	.94	.84
11	.90	1.00	1.12	1.31	1.36	1.31	1.15	1.03	.94
12	.99	1.10	1.22	1.36	1.39	1.32	1.19	1.07	.97
13	.98	1.08	1.19	1.35	1.40	1.35	----	1.05	.94
14	----	----	1.26	1.39	1.42	1.37	1.24	1.09	.98
15	1.02	1.12	1.24	1.35	1.36	1.35	1.19	1.04	.95
17	----	1.00	1.14	1.30	----	1.28	.97	----	----
18	----	----	----	1.26	1.28	1.22	----	----	----
19	----	.90	----	----	----	----	.96	.87	.75
20	.82	.94	1.06	1.25	1.29	1.20	1.06	.93	.80
21	.98	1.08	1.20	1.34	1.39	1.35	1.18	----	----
22	.96	1.07	1.19	1.30	1.42	1.35	1.23	1.08	.98
23	1.03	----	----	----	1.46	----	1.24	----	----
24	.98	1.09	1.21	1.37	1.42	1.39	1.23	1.06	.97
25	1.01	1.12	1.25	1.43	1.43	1.39	1.25	1.13	1.02
28	.98	----	----	----	----	----	1.22	----	----
30	----	----	----	1.25	1.39	1.31	1.17	----	----
Averages	1.00	1.09	1.22	1.36	1.41	1.35	1.19	1.07	.97

SOLAR RADIATION INTENSITIES

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

DECEMBER 1976

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
[illegible]																															

NET RADIATION

Net radiation in langleys per day (8 a.m. to 8 a.m.) at Palmer, Alaska. DECEMBER 1976

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .	-24	- 9	- 5	-28	-12	1	0	-38	- 2	-12	-12	-12	-53	-71	-52	-37	-57	-31	-73	-18	-57	-11	-47	-90	-88	-50	-32	-61	-65	-93	-50	-39

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals and monthly average (.3900 Å) at Ames, Iowa

Date. . . .	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .																																

NO DATA RECEIVED

TOTAL OZONE DATA

These provisional ozone data are obtained from measurements made with a Dobson ozone spectrophotometer, and are applicable approximately to local apparent noon. The data are presented in the code as defined in the August 1962 WMO circular entitled "PUBLICATION OF DATA FOR METEOROLOGICAL RESEARCH, WORLD OZONE DATA."

Units Milli-atmo-cms.

Station	Day of month																															Mean O_3
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	3	31	

NO DATA RECEIVED

STORM SUMMARY LATE REPORTS

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				◊ ALL OTHER			
								†DAMAGE				†DAMAGE				†DAMAGE						†DAMAGE				†DAMAGE			
[illegible] 1976																													
California												5														1			
JUNE 1976																													
Nevada																													
NOVEMBER 1976																													
Tennessee																													

CORRECTIONS

DATE	TABLE	STATE	CORRECTION
[illegible] 1976	STORM SUMMARY	[illegible]	[illegible]
JULY 1976	STORM SUMMARY	PENNSYLVANIA	TORNADOES: Number - 10; Days - 4; Deaths - 2; Injuries - 25; [illegible] LIGHTNING: Deaths - 1; Crops - 4.

REFERENCE NOTES

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES Dates in the table apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

+ And also on an earlier date or dates.
D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile data can be evaluated.

B Number of days maximum 21.1°C. or above for Alaskan Stations.
Y Peak Gust.
+ And also on an earlier date or dates.
U Indicates Urban site.
R Indicates Rural site.
Ø Station pressures apply to elevations shown in the "Elevations" table of the annual issue of this publication.

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters
$F. = \frac{9}{5} \times C + 32$
1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

° Includes crop damage.
C Crop damage.
* No occurrence of storms or unusual weather phenomena reported.
@ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
Ø For breakdown of "All Others," and for detailed listing of other storms, see the Environmental Data Service, NOAA, monthly publication STORM DATA.
‡ No Storm Data Report received for this State.
· · Report Incomplete.
† Storm damages are placed in categories varying from 1 to 9 as follows:
1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5 Million
7 $5 Million to $50 Million
8 $50 Million to $500 Million
9 $500 Million to $5 Billion.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS:

1/ Flooding continued at the end of the month.
NA Not available.

FLOOD STAGE DATA:

Highest Stage Observed
1/ Continued at end of month
___ Highest Stage of Record
E Estimated
P Provisional (Flood Stage)
U Unknown

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
+ Observations for these stations are scheduled at 0000 G.C.T.
† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

REFERENCE NOTES

SOLAR RADIATION INTENSITY: [illegible] used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

()	Clouds Present	DM	Moderate Dust	HM	Moderate Haze	KS	Slight Smoke
*	Values corresponding to true solar noon	DS	Slight Dust	HS	Slight Haze	M	Moderate Haze-indeter-
[illegible]		[illegible]		[illegible]			
[illegible]		[illegible]		[illegible]			
D	Dust	H	Haze	KI	Intense Smoke	S	Slight Haze-indeter-
DI	Intense Dust	HI	Intense Haze	KM	Moderate Smoke		minable

SOLAR [illegible]

* [illegible]

Data are only for those stations equipped with Eppley Model II sensors.

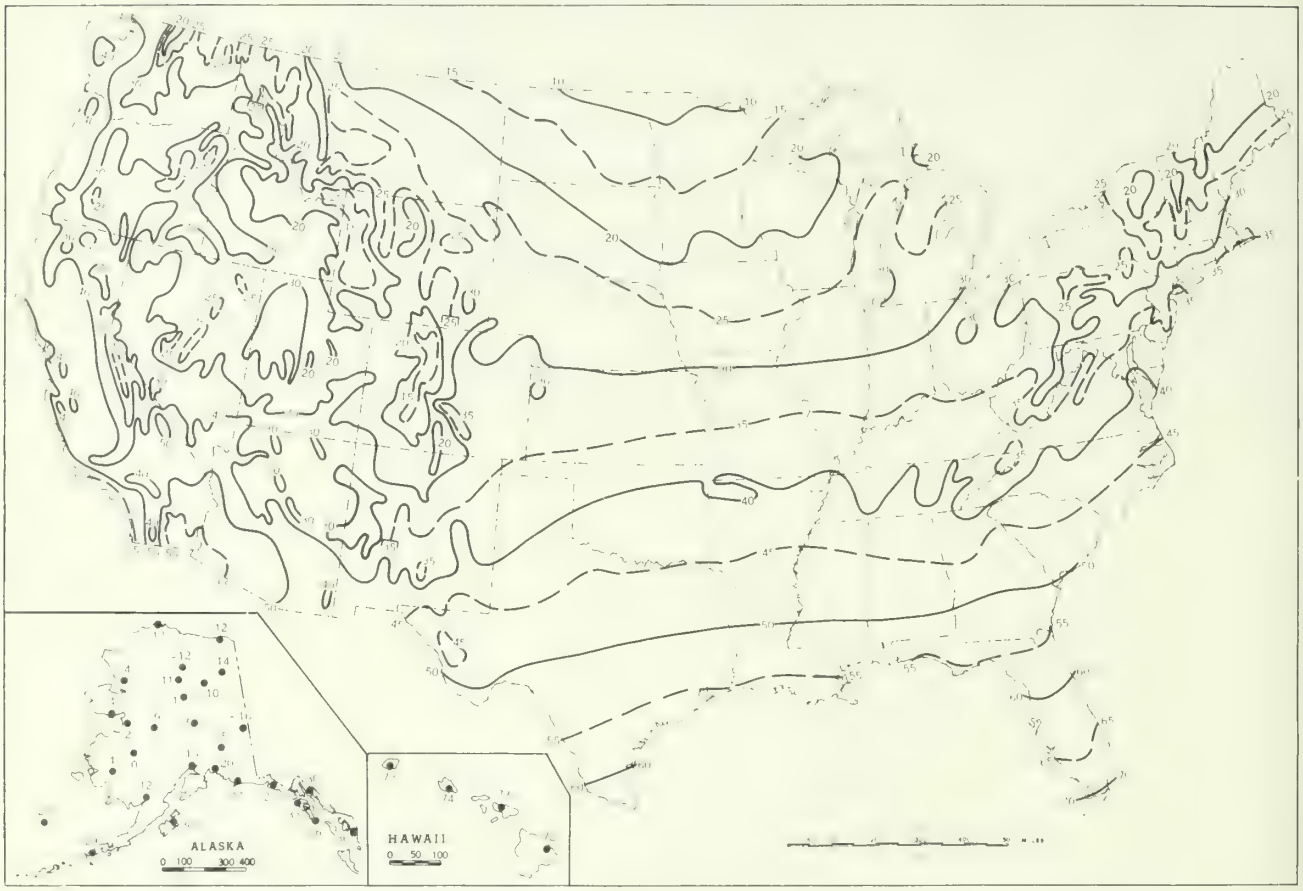
NET RADIATION: The measurement is made with a CSIRO FUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by the NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA: These data are from an U-V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA: The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded 2 2 2) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code $_{A}$S designates the type of measurement made.

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), December.



B. Temperature Departure from 30 - Year Mean (°F 1941-70), December 1976

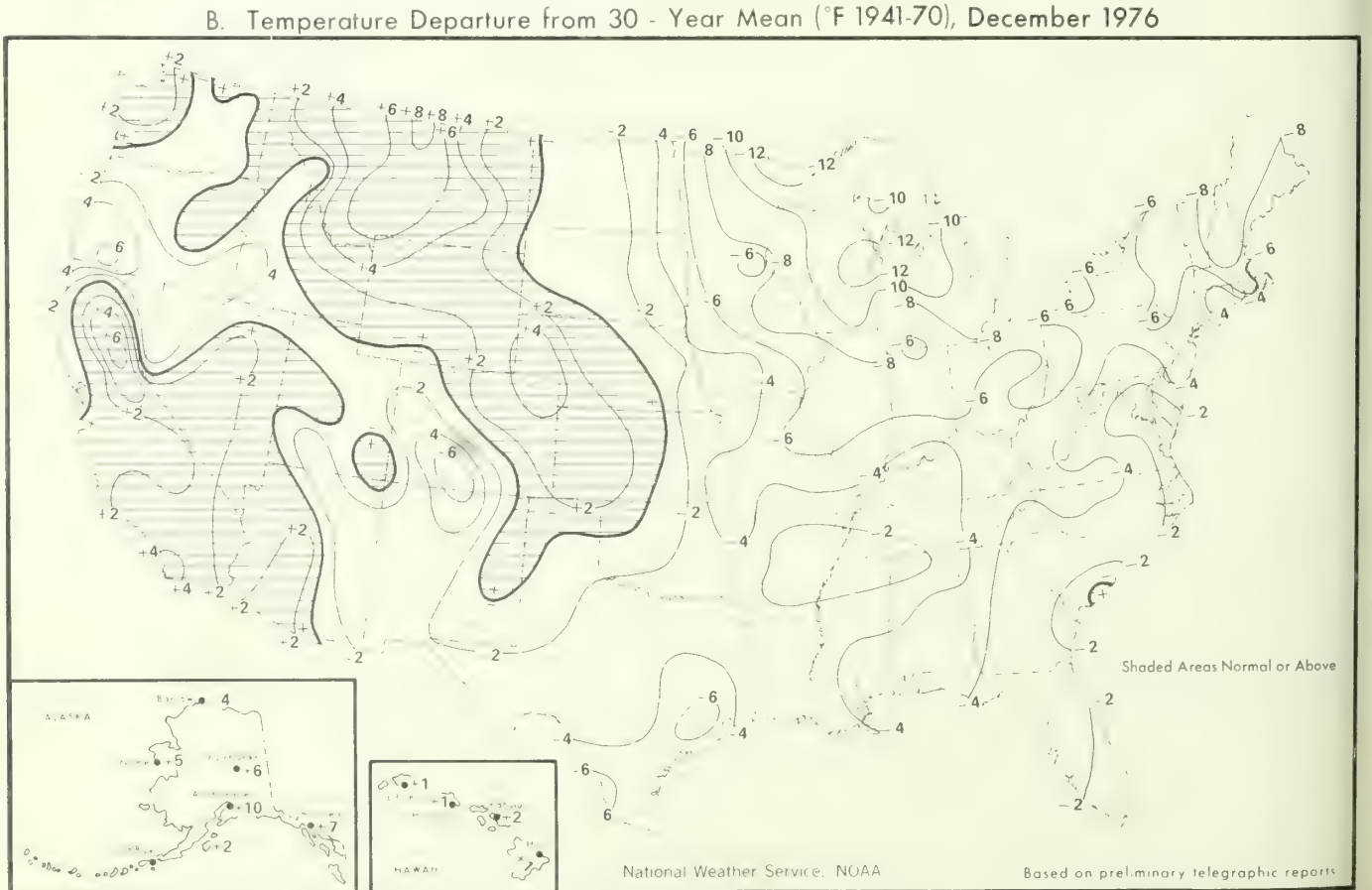


Chart II. A. Total Precipitation (Inches), December 1976

B. Percentage of Normal Precipitation, December 1976

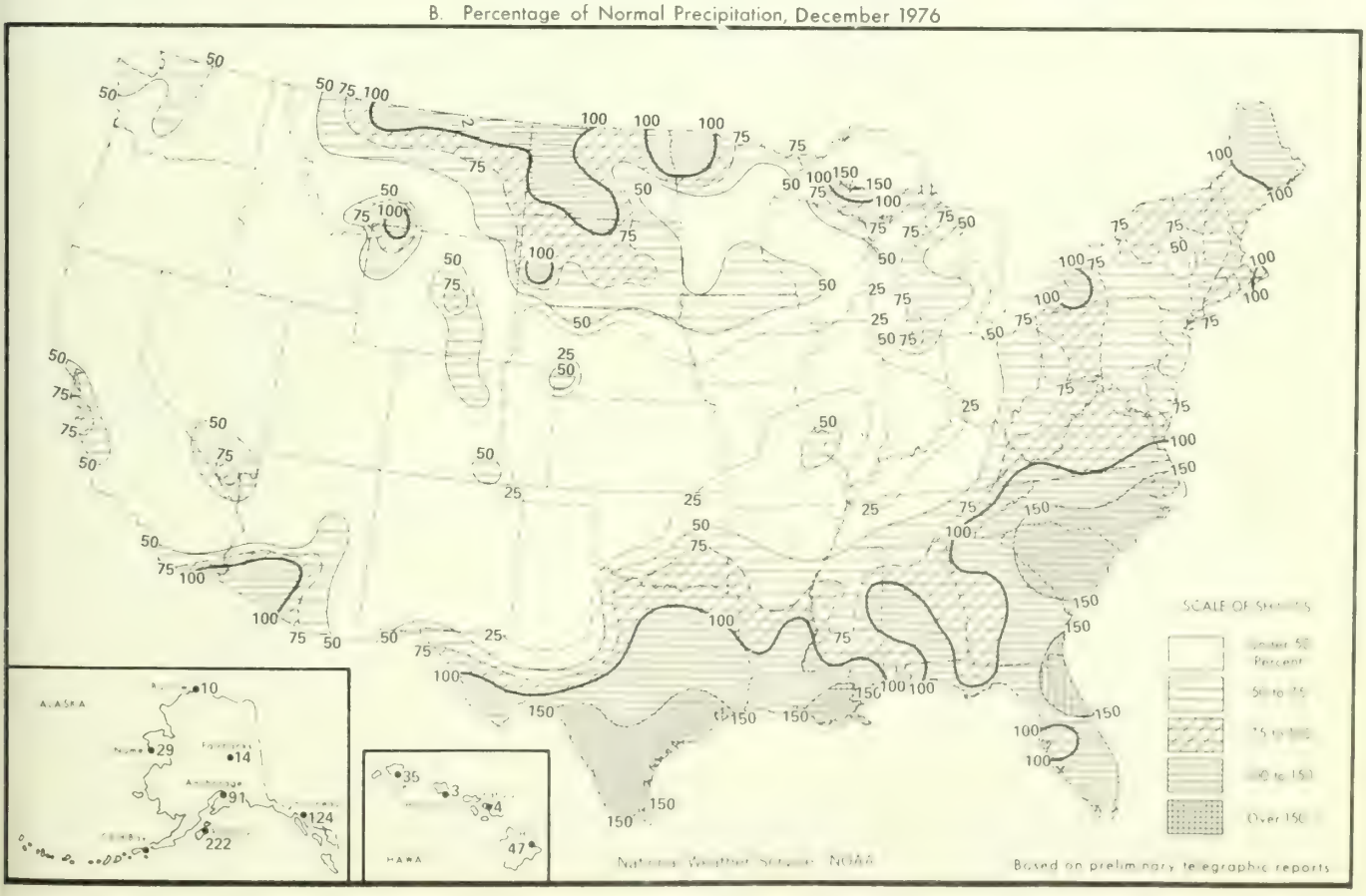
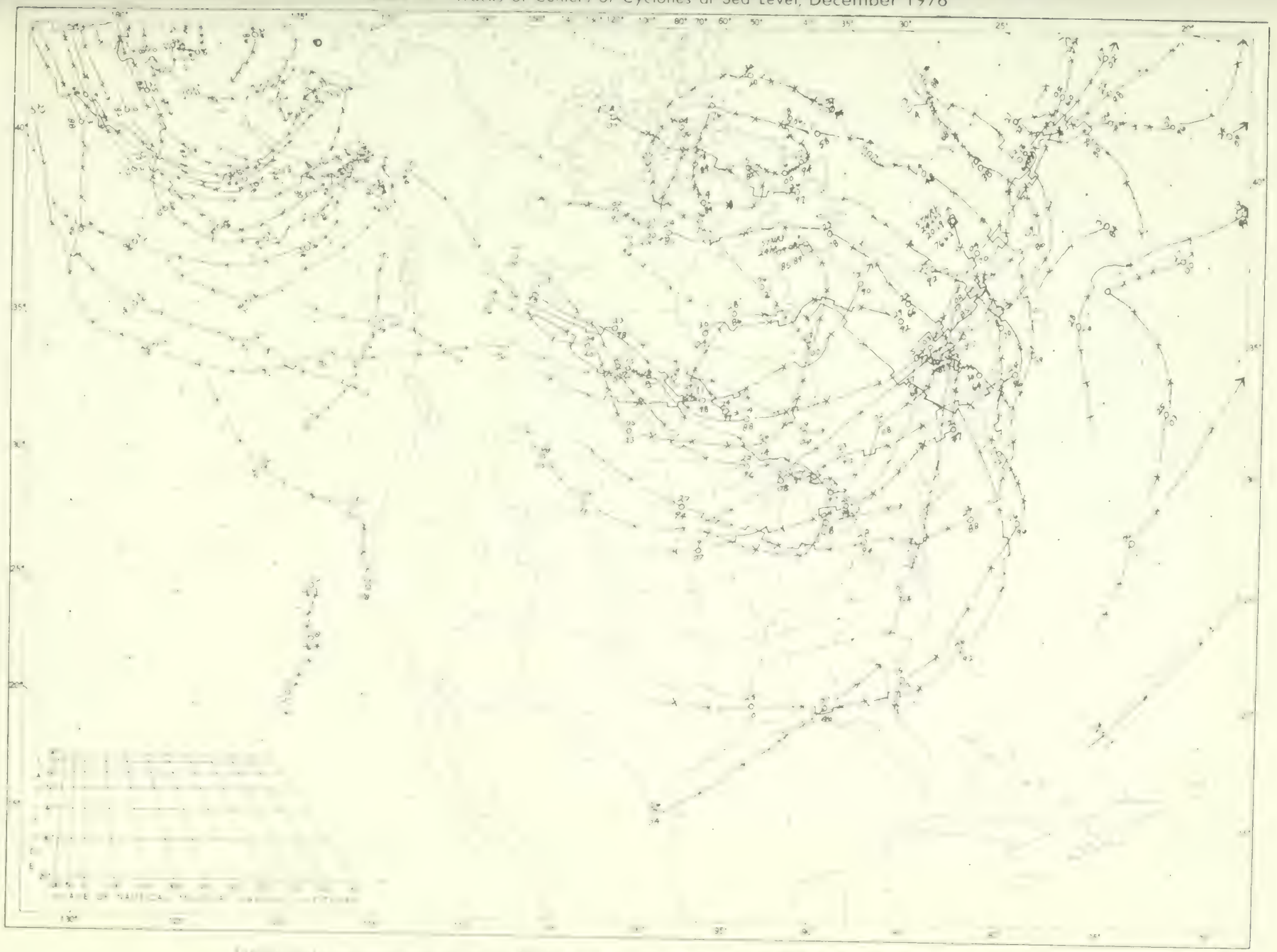


Chart III Tracks of Centers of Anticyclones at Sea Level December 1976

Circle indicates position of center at 0000 GMT. Figure to right of circle indicates date; figure below, pressure to nearest millibar. X's indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IV Tracks of Centers of Cyclones at Sea Level, December 1976



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1976 ANNUAL SUMMARY VOLUME 27 NUMBER 13

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

"I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND IS COMPILED FROM INFORMATION RECEIVED AT THE NATIONAL CLIMATIC CENTER, ASHEVILLE, NORTH CAROLINA 28801."

Earl E. Whitehead

DIRECTOR
NATIONAL CLIMATIC CENTER

noaa NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION / ENVIRONMENTAL DATA SERVICE / NATIONAL CLIMATIC CENTER ASHEVILLE, N.C.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

YEAR 1976

GENERAL SUMMARY OF WEATHER CONDITIONS

Lewis A. Blodgett, Meteorological Advisor, NCC

Reversing the trend of the past three winters, January temperatures were below normal east of the Mississippi, while the West, except for a cold pocket centered over western Colorado and New Mexico, was warmer than usual. Dryness was a notable feature of the month, with the West and Central Plains suffering from a lack of precipitation. The winter snow pack in the western mountains, on which water for irrigation depends, was very light.

February was a warm month everywhere except the extreme Northwest. Record high temperatures occurred in the Midwest in the second half of the month. The dry weather in the western States was broken by substantial precipitation over most western areas during the second and third weeks. However, the Plains remained dry. The last week saw very dry and warm weather in nearly every part of the Nation, except the Pacific Coast and southern Florida.

March continued the warm trend in the East, although by not as much above normal as February. West of the Continental Divide the temperatures were slightly below normal. The Western States and Plains continued to suffer a deficit of moisture, causing worries about the wheat crop.

The seriously dry Plains states finally received abundant rainfall in April, providing much needed moisture for the crops. However, the mid South and East Coast were extremely dry, with many stations reporting the driest April on record. Some had no rain at all until the last day. In the East a spectacular heat wave beginning about midmonth culminated in the warmest April temperatures of record at many stations. Providence, RI, reported 98° on the 19th. This heat wave was broken by the 23d. The month as a whole was warmer than normal except for the West, southern Texas, and parts of the Southeast.

May brought substantial rainfall to much of the eastern United States, and the Southwest. However, dryness prevailed in the northern Plains and parts of the West. Temperaturewise, cool weather prevailed in the East as far to the west as New Mexico northeastward to Wisconsin. Westward of this line, temperatures averaged warmer than normal.

Drought stricken areas in Minnesota and the northern Plains received welcome rainfall in June, but some areas remained critically dry. The Coastal Northeast also was dry. Much of the United States did receive adequate rainfall in June, however. Subnormal temperatures prevailed in the South, Northwest, and southern Rockies, with above normal temperatures elsewhere. The northern Plains were warmest relative to normal.

Hot weather and drought persisted in the northern Plains in July, with spotty dry areas in the East. Much of the West, on the other hand, had an unusual amount of rainfall for a summer month.

Temperatures averaging 8 to 10° below normal prevailed in southern Texas, a rare anomaly for July. Cooler than normal weather was the rule in much of the East from Louisiana northeastward through New England.

August was cool and wet in the Northeast and Northwest. Record precipitation occurred in California for a normally dry summer month. The South was cool also, although with spotty precipitation. The only large area of above normal temperatures during August was the drought stricken northern Plains.

Unseasonably heavy rainfall continued in September in California, much of it associated with a tropical storm entering the Southern part of the State the second week causing excessive crop-damaging rains. The northern Plains remained dry and warm, while the South and East were cooler than normal.

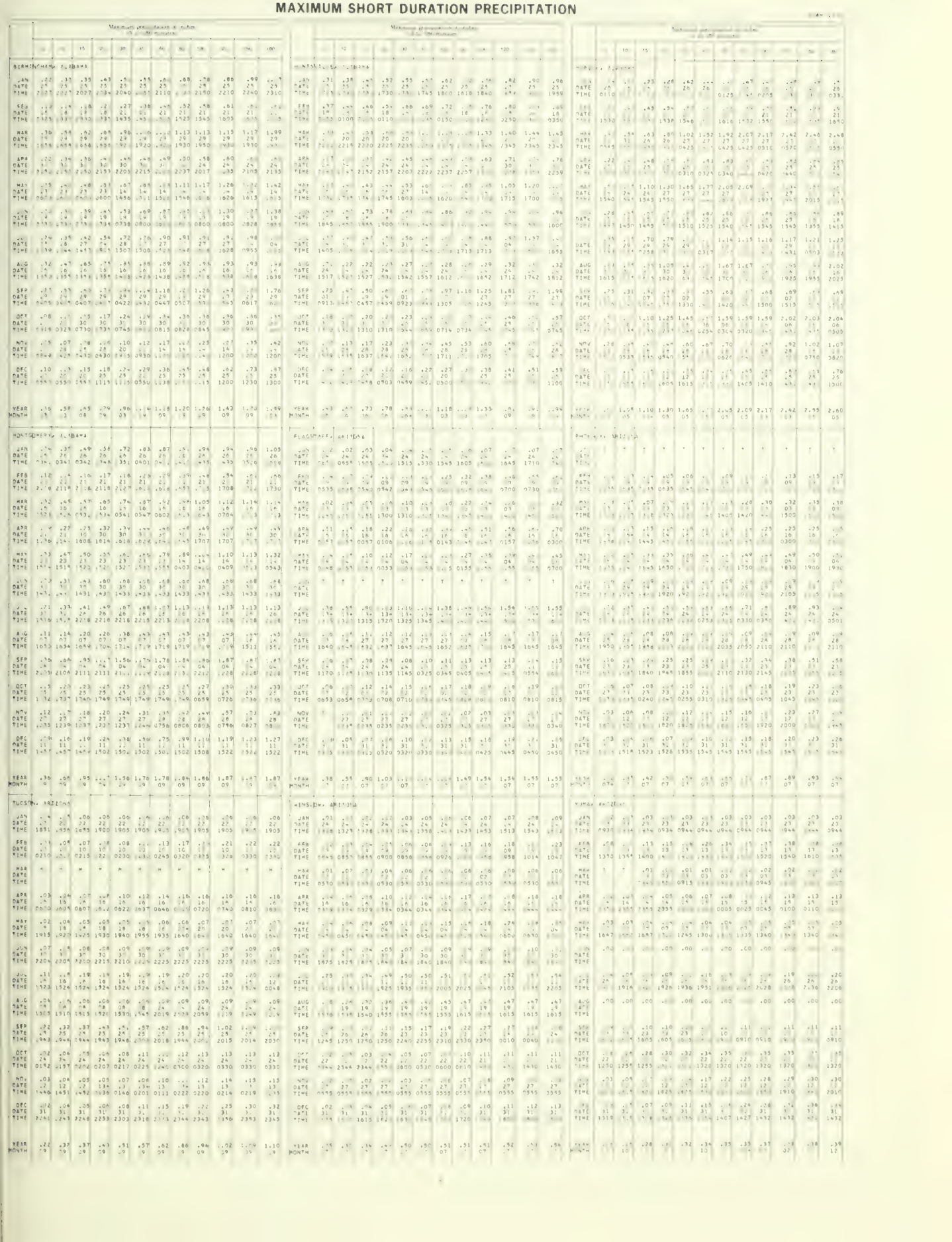
A pattern of northwest flow causing cool dry weather in much of the eastern half of the nation, whose beginnings were evident in September, intensified greatly in October. This pattern was to persist through the rest of the year. October was much colder than normal from the Rocky Mountains to the East Coast, with much of the Plains receiving less than 25% normal precipitation. The Pacific Northwest was also dry. A band from Texas northeastward to New England encompassing much of the South received above normal monthly precipitation, however. The last week of the month saw record Snowfall for so

early in the season in northern Texas. Amarillo received nearly 4 inches.

With November continuing the pattern, the northern Plains received only 10% of normal precipitation. Many eastern and southern stations reported their coldest November on record. Again, some of the South reported greater than normal precipitation.

December brought more of the same. Many stations had their coldest December of record, while dry weather prevailed over most of the Nation. With the second successive very dry winter season beginning in the West, a serious water shortage was looming. Parts of the South, this month as in the preceding months, recorded adequate rainfall.

MAXIMUM SHORT DURATION PRECIPITATION



MAXIMUM SHORT DURATION PRECIPITATION

(Rev. 1976)

Maximum precipitation in inches — 15 minutes

	5	10	15	30	60	2	3	6	12	24
FORT SMITH, ARKANSAS										
JAN	.73	.84	.93	1.07	1.17	1.36	1.42	1.53	1.64	1.74
DATE	9	9	19	9	19	9	19	19	19	19
TIME	1138	1143	1248	1248	1248	1313	1328	1348	1408	1428
FEB	.86	1.15	1.20	1.22	1.30	1.37	1.42	1.42	1.42	1.42
DATE	20	20	20	20	20	20	20	20	20	20
TIME	2144	2159	2210	2220	2225	2245	2305	2315	2315	2315
MAR	1.02	1.27	1.35	1.54	1.63	1.69	1.70	1.70	1.70	1.70	1.70
DATE	29	29	29	29	29	29	29	29	29	29	29
TIME	1553	1558	1236	1240	1240	1258	1258	1555	1555	1555	1555
APR	.76	1.20	1.23	1.28	1.33	1.35	1.45	1.77	1.81	1.81	1.81
DATE	20	20	20	20	20	20	20	20	2	2	2
TIME	0345	0350	0350	0350	0405	0415	0445	0445	0445	0445	0205
MAY	.95	1.67	2.02	2.96	3.25	3.37	3.44	3.44	3.44	3.44	3.44
DATE	8	8	8	8	8	8	8	8	8	8	8
TIME	1456	1511	1516	1521	1521	1523	1538	1538	1538	1538	1538
JUN	.96	1.45	1.50	1.54	1.78	1.99	2.04	2.16	2.23	2.30	2.34	2.34
DATE	18	18	18	18	18	18	18	18	18	18	18	18
TIME	2318	2323	2328	0405	0405	0415	0430	0450	0510	0530	0600	0830
JUL	.17	.29	.33	.35	.37	.37	.38	.38	.38	.41	.41	.42
DATE	15	15	15	15	15	15	5	15	15	15	15	15
TIME	1353	1358	1343	1348	1358	1413	1428	1444	1508	1508	1526	1526
AUG	.82	.98	.93	.97	1.00	1.06	1.08	1.09	1.09	1.09	1.18	1.26
DATE	24	24	24	24	24	24	24	24	24	24	24	24
TIME	2317	2335	2340	2345	2345	[illegible]	[illegible]	[illegible]	0030	[illegible]	[illegible]	[illegible]
SEP	.99	1.44	1.47	1.49	1.23	1.25	1.28	1.38	1.44	1.51	1.54	1.54
DATE	16	16	16	16	16	16	16	16	16	16	16	16
TIME	0804	0804	0804	0804	0915	0830	0845	0900	0945	1015	1045	1045
OCT	.78	1.18	1.30	1.40	1.45	1.57	1.60	1.70	1.72	1.76	1.78	1.78
DATE	23	23	23	23	23	24	24	24	24	24	24	24
TIME	1455	1455	1445	1455	1455	1500	1515	1545	1615	1640	1640	1640
NOV	.74	.98	1.09	1.10	1.18	1.22	1.28	1.30	1.34	1.34	1.34	1.34
DATE	11	12	11	12	11	11	11	11	11	11	11	11
TIME	0915	0935	0935	0930	0903	0915	0930	0945	1010	1030	1100	1130
DEC	.75	.97	1.09	1.10	1.13	1.16	1.22	1.27	1.31	1.37	1.45	1.53
DATE	24	24	24	24	24	24	24	24	24	24	24	24
TIME	0457	0527	0532	0537	0547	0602	0602	0622	0622	0622	0622	0622
YEAR	.90	1.70	1.83	1.96	1.25	1.37	1.40	1.46	1.53	1.56	1.62	1.63
MONTH	8	8	8	8	5	5	5	5	5	5	5	5

	5	10	15	30	60	2	3	6	12	24
LITTLE ROCK, ARKANSAS										
JAN	.78	1.15	1.16	1.17	1.20	1.21	1.27	1.37	1.41	1.47
DATE	31	31	31	31	31	31	31	31	31	31
TIME	2345	2345	2355	0005	0020	0030	0045	2008	0015	0045	0115
FEB	.75	1.45	1.55	1.57	1.58	1.83	1.86	1.88	1.92	1.93	1.94
DATE	21	21	21	21	21	21	21	21	21	21	21
TIME	0015	0015	0015	0015	0040	0055	0115	0130	0140	0200	0230	0300
MAR	.73	1.38	1.55	1.75	1.85	1.90	1.99	1.07	1.10	1.10	[illegible]	1.10
DATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29	29	[illegible]	[illegible]	29
TIME	2130	2135	2140	2145	2155	2208	2227	2245	2305	[illegible]	[illegible]	2320
APR	.70	1.30	1.30	1.30	1.36	1.45	1.46	1.47	1.47	1.47	1.47	1.47
DATE	24	24	24	24	11	11	[illegible]	11	11	[illegible]	[illegible]	11
TIME	1555	1555	1705	1705	1630	1645	1700	1715	1715	1715	1715	1715
MAY	.24	.44	.91	.46	.50	.54	.65	.84	.9	1.00	1.01	1.02
DATE	8	8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	2255	2255	2255	2300	2310	2330	[illegible]	[illegible]	2330	[illegible]	[illegible]	2330
JUN	.37	.70	.85	1.10	1.27	1.37	1.40	[illegible]	1.45	1.45	1.45	1.45
DATE	24	24	24	24	24	24	[illegible]	24	24	24	24	24
TIME	1550	1550	1600	1610	1615	1630	1631	1646	1646	[illegible]	[illegible]	[illegible]
JUL	.12	.23	.33	.30	.35	[illegible]	.47	.47	.47	.47	.47	.47
DATE	15	15	15	26	26	26	26	26	26	26	26	26
TIME	2150	2155	2200	1640	1850	1855	1855	1855	1855	1855	1855	1855
AUG	.35	.69	.85	.11	1.17	[illegible]	1.21	[illegible]	[illegible]	[illegible]	[illegible]	1.21
DATE	27	27	27	27	27	27	27	27	27	27	27	27
TIME	[illegible]	[illegible]	1555	1600	1810	[illegible]	[illegible]	655	655	1655	655	[illegible]
SEP	.23	.36	.90	.6	.95	1.19	1.24	1.25	.76	.77	1.30	1.30
DATE	17	17	17	02	02	02	02	02	02	03	02	02
TIME	1115	1115	1125	[illegible]	1150	[illegible]	[illegible]	1235	1250	1305	1330	[illegible]
OCT	.22	.44	.55	.65	1.00	1.53	1.53	1.57	1.60	1.65	1.69	1.72
DATE	24	24	24	24	24	24	24	24	24	24	24	24
TIME	[illegible]	[illegible]	1918	1925	1932	1940	[illegible]	2005	[illegible]	2045	2115	2145
NOV	.7	.09	.13	.14	.18	.22	.25	.27	.30	.32	.37	.38
DATE	7	20	20	20	20	20	20	[illegible]	20	[illegible]	20	20
TIME	1440	[illegible]	1445	1450	1500	1515	1530	1550	1610	1630	1700	1730
DEC	.06	.8	.12	.13	[illegible]	.21	.25	[illegible]	.32	.34	[illegible]	[illegible]
DATE	[illegible]	10	[illegible]	10	10	[illegible]	[illegible]	10	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	1951	1956	[illegible]	2000	2015	2030	[illegible]	2110	[illegible]	2200	[illegible]
YEAR	.37	.7	.85	1.10	1.27	1.50	1.53	1.57	[illegible]	1.65	1.69	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	06	[illegible]	[illegible]	[illegible]	[illegible]	10	[illegible]	[illegible]

	5	10	15	30	60	2	3	6	12	24
BAKERSFIELD, CALIFORNIA										
JAN	.01	.02	.02	.02	.03	.04	.04	.05	.05	.05	.05
DATE	4	4	4	4	4	9	9	9	9	9	9
TIME	1702	[illegible]	1712	1717	1727	[illegible]	1730	1730	1730	1730	1730
FEB	.04	.07	.10	.14	.19	.22	.24	.26	.28	.34	.35
DATE	3	3	3	3	3	3	3	3	3	3	3
TIME	0450	0450	0450	0450	0520	0540	0540	0550	0615	0530	0605	0635
MAR	.05	.07	.08	.11	.14	.18	.25	.28	.28	.29	.31	.32
DATE	01	1	[illegible]	01	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	01
TIME	[illegible]	0355	[illegible]	[illegible]	0445	[illegible]	[illegible]	[illegible]	[illegible]	0500	[illegible]	[illegible]
APR	.04	.07	.08	.08	.08	.08	.08	.11	.12	.14	.15	.16
DATE	15	[illegible]	[illegible]	15	[illegible]	[illegible]	[illegible]	[illegible]	13	13	13	13
TIME	1255	[illegible]	[illegible]	[illegible]	1330	[illegible]	[illegible]	[illegible]	[illegible]	0148	[illegible]	[illegible]
MAY	.06	.12	.13	.19	.26	.34	.38	.42	.43	.43	.43	.43
DATE	08	8	8	8	8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	1745	1800	[illegible]	[illegible]	1830	1822	844	1902	[illegible]	2030
JUN	.07	.12	.16	.23	.31	.40	.42	.42	.42	.42	.42	.42
DATE	10	10	10	10	10	10	10	10	10	10	10	10
TIME	0530	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUL	T	T	T	T	T	T	T	T	T	T	T	T
DATE												
TIME												
AUG	T	T	T	T	T	T	T	T	T	T	T	T
DATE												
TIME												
SEP	.06	.13	.15	.18	.29	.33	.35	.36	.36	.38	.38	.38
DATE	19	29	29	29	29	29	29	29	29	29	29	29
TIME	0715	[illegible]	[illegible]	0720	0722	0733	0754	0754	0754	0744	[illegible]	[illegible]
OCT	T	[illegible]	.05	.05	.08	.9	[illegible]	.10	.10	.10	[illegible]	.11
DATE	[illegible]	[illegible]	[illegible]	01	[illegible]	[illegible]	[illegible]	[illegible]	01	01	[illegible]	[illegible]
TIME	1735	1740	1745	1750	1740	[illegible]	[illegible]	1830	845	1905	[illegible]	[illegible]
NOV	.06	.13	.15	.18	.29	.33	.35	.36	.36	.38	.38	.38
DATE	13	29	29	29	29	29	29	29	29	29	29	29
TIME	0715	[illegible]	[illegible]	0720	0722	0733	0754	0754	0754	0744	[illegible]	[illegible]
DEC	.04	.07	.08	.11	.12	.14	.14	.14	.14	.14	.14	.14
DATE	3	3	3	3	3	3	3	3	3	3	3	3
TIME	1455	[illegible]	[illegible]	[illegible]	1931	0553	[illegible]	[illegible]	0808	0808	[illegible]	[illegible]
YEAR	.06	.13	.15	.18	.29	.34	.38	[illegible]	.43	.43	[illegible]	.50
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

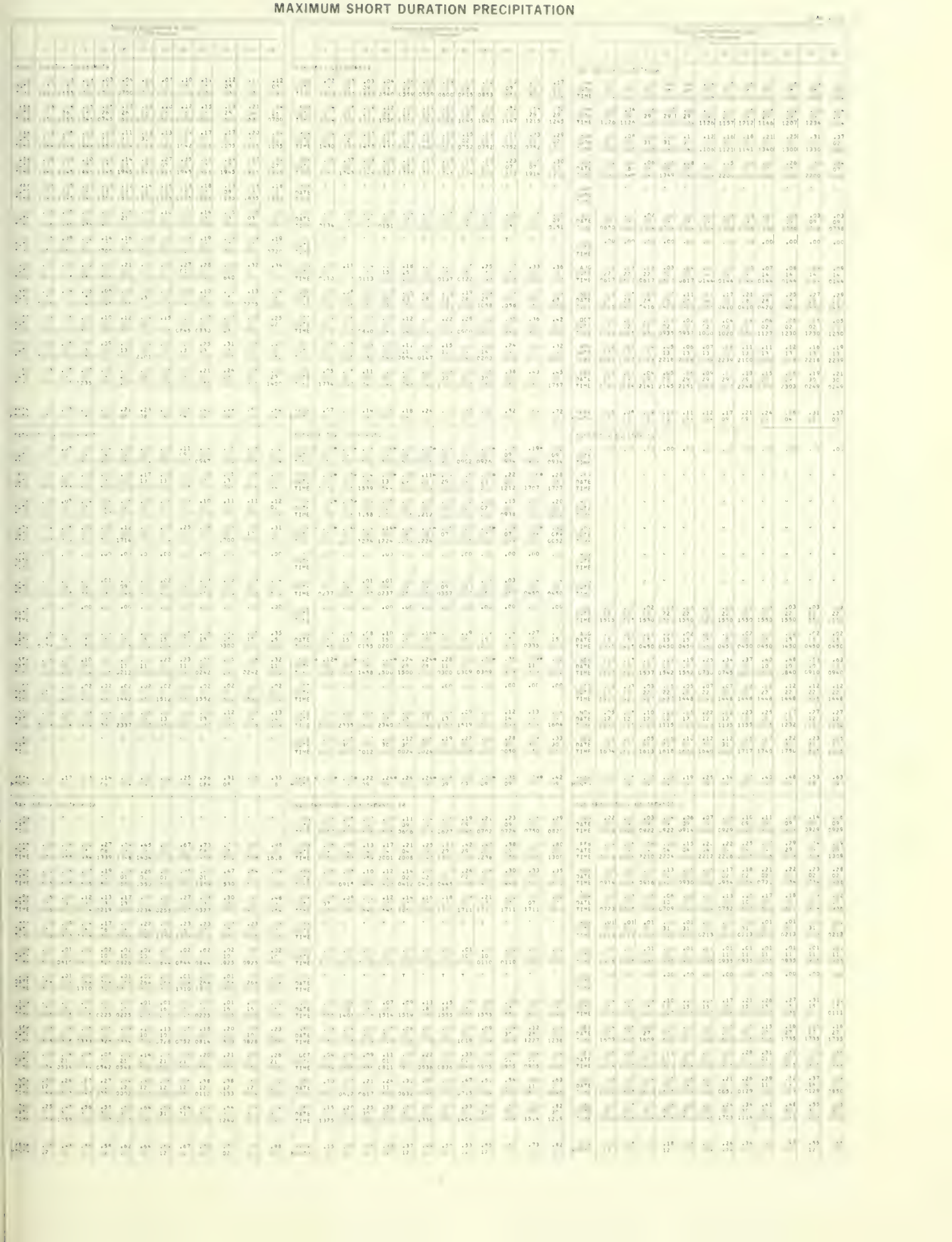
	5	10	15	30	60	2	3	6	12	24
BISHOP, CALIFORNIA										
JAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
DATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
FEB	.07	.07	.07	.07	.11	.11	.15	.17	.23	.23	.23	.24
DATE	06	6	06	6	06	06	06	06	06	06	06	6
TIME	0943	0958	1005	1005	0900	0915	0945	0957	1015	1015	1015	1015
MAR	T	T	.01	.01	.01	.01	.02	.02	.02	.02	.03	.04
DATE	[illegible]	[illegible]	02	02	02	02	02	02	02	02	02	02
TIME	[illegible]	[illegible]	0600	0600	[illegible]	0815	0815	0815	0815	0815	0830	0830
APR	[illegible]	.01	.01	.01	.01	.02	.02	.02	.02	.02	.04	.04
DATE	[illegible]	13	13	13	13	13	13	13	13	13	13	13
TIME	[illegible]	2045	2045	2045	[illegible]	[illegible]	2130	[illegible]	2130	2130	[illegible]	[illegible]
MAY	.02	.03	.05	.06	.07	.09	.14	.15	.17	.20	.24	.26
DATE	04	04	06	06	06	06	06	06	06	06	06	06
TIME	1331	[illegible]	1320	1320	1330	1345	1400	1420	[illegible]	1345	[illegible]	1455
JUN	.06	.11	.12	.12	.13	.13	.13	.13	.13	.13	.13	.13
DATE	10	10	10	10	10	10	10	10	10	10	10	10
TIME	1313	1314	1320	1325	1335	1335	1335	[illegible]	1335	1335	1335	1335
JUL	.09	.14	.20	[illegible]	.26	.27	.34	.34	.36	.37	.37	.37
DATE	27	27	27	27	27	27	18	[illegible]	[illegible]	[illegible]	[illegible]	18
TIME	2025	2029	2025	2025	2035	[illegible]	[illegible]	1540	1550	[illegible]	[illegible]	1615
AUG	T	T	T	T	T	T	T	T	T	T	T	T
DATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SEP	.06	.11	.11	.11	.11	.11	.12	.13	.15	.15	.16	.17
DATE	29	29	29	29	29	29	29	29	29	29	29	29
TIME	2045	2045	2045	2045	2045	2140	2200	2220	2240	[illegible]	2340	2340
OCT	.02	.03	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
DATE	01	01	01	01	01	01	01	01	01	01	01	01
TIME	0155	0155	0155	0155	0155	0155	0155	0155	0155	0155	0155	0155
NOV	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
DATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DEC	T	T	T	T	T	T	T	T	T	T	T	T
DATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
YEAR	.09	.14	.20	[illegible]	.26	.27	.30	.34	.36	.37	.37	.37
MONTH	07	07	07	07	07	07	07	07	07	07	07	07

	5	10	15	30	60	2	3	6	12	24
SAN DIEGO, CALIFORNIA										
JAN	.02	.04	.05	.06	.08	.10	.15	.20	.24	.25	.37
DATE	09	[illegible]	[illegible]	09	09	09	09	09	9	9	9
TIME	[illegible]	[illegible]	[illegible]	0730	[illegible]	[illegible]	0810	[illegible]	[illegible]	[illegible]	0730
FEB	.04	.8	.10	.12	.15	.19	.24	.27	.30	.47	.48	.48
DATE	18	18	18	18	18	18	29	29	29	29	29	29
TIME	2145	2245	2245	2245	2245	1045	1045	1100	[illegible]	1140	1210	1240
MAR	.01	.16	.18	.20	.24	.24	.27	.33	.36	.37	[illegible]	.48
DATE	24	24	24	24	24	24	24	24	24	24	24	18
TIME	[illegible]	[illegible]	1708	1708	1708	1706	[illegible]	1720	1740	[illegible]	1905	[illegible]
APR	[illegible]	.4	.7	.08	.11	.15	.20	.17	.19	.22	.3	.24
DATE	[illegible]	15	[illegible]	15	15	15	15	15	15	[illegible]	[illegible]	08
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAY	.02	.3	.10	.21	.22	.24	.4	.7	.31	.31	.34	[illegible]	.32
DATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1570	[illegible]	1523
JUN	.2	.7	.02	.7	.0	[illegible]	.03	.03	.03	.05	.05
DATE	[illegible]	[illegible]	[illegible]	30	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUL	.02	.07	.03	.9	.7	.07	.07	.07	.09	.11	.14
DATE	11	11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AUG	.4	.5	.05	.08	.07	.9	[illegible]	.14	.17	.17	.19	.19
DATE	[illegible]	[illegible]	[illegible]	15	15	15	15	15	15	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SEP	.01	.01	.01	.1	.1	.1	.1	.2	.02	.02	.02	.02
DATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
OCT	.01	.02	.03	.03	.04	.05	.07	.8	.14	.24	.24	.24
DATE	01	01	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NOV	.3	.05	.07	.07	.12	.7	.24	.3	.36	.47	.57	.69	.78	.83	.86
DATE	14	14	14	14	14	[illegible]	[illegible]	14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DEC	.4	.7	.09	.11	.14	.17	.9	.21	.27	.27	.27
DATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
YEAR	.15	.28	.34	.22	.26	.36	.43	.50	.55	.60	[illegible]	.75
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	09	[illegible]	[illegible]	[illegible]

	5	10	15	30	60	2	3	6	12	24
SAN FRANCISCO, CALIFORNIA										
JAN	.01	.02	.02	.03	.04	.05	.05	.05	.05	.05	.05
DATE	9	9	9	9	9	9	9	9	9	9	9
TIME	1702	[illegible]	1712	1717	1727	[illegible]	1730	1730	1730	1730	1730
FEB	.04	.07	.10	.14	.19	.22	.24	.26	.28	.34	.35
DATE	3	3	3	3	3	3	3	3	3	3	3
TIME	0450	0450	0450	0450	0520	0540	0540	0550	0615	0530	0605	0635
MAR	.05	.07	.08	.11	.14	.18	.25	.28	.28	.29	.31	.32
DATE	01	1	[illegible]	01	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	01
TIME	[illegible]	0355	[illegible]	[illegible]	0445	[illegible]	[illegible]	[illegible]	[illegible]	0500	[illegible]	[illegible]
APR	.04	.07	.08	.08	.08	.08	.08	.11	.12	.14	.15	.16
DATE	15	[illegible]	[illegible]	15	[illegible]	[illegible]	[illegible]	[illegible]	13	13	13	13
TIME	1255	[illegible]	[illegible]	[illegible]	1330	[illegible]	[illegible]	[illegible]	[illegible]	0148	[illegible]	[illegible]
MAY	.06	.12	.13	.19	.26	.34	.38	.42	.43	.43	.43	.43
DATE	08	8	8	8	8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	1745	1800	[illegible]	[illegible]	1830	1822	844	1902	[illegible]	2030
JUN	.07	.12	.16	.23	.31	.40	.42	.42	.42	.42	.42	.42
DATE	10	10	10	10	10	10	10	10	10	10	10	10
TIME	0530	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUL	T	T	T	T	T	T	T	T	T	T	T	T
DATE												
TIME												
AUG	T	T	T	T	T	T	T	T	T	T	T	T
DATE												
TIME												
SEP	.06	.13	.15	.18	.29	.33	.35	.36	.36	.38	.38	.38
DATE	19	29	29	29	29	29	29	29	29	29	29	29
TIME	0715	[illegible]	[illegible]	0720	0722	0733	0754	0754	0754	0744	[illegible]	[illegible]
OCT	T	[illegible]	.05	.05	.08	.9	[illegible]	.10	.10	.10	[illegible]	.11
DATE	[illegible]	[illegible]	[illegible]	01	[illegible]	[illegible]	[illegible]	[illegible]	01	01	[illegible]	[illegible]
TIME	1735	1740	1745	1750	1740	[illegible]	[illegible]	1830	845	1905	[illegible]	[illegible]
NOV	.06	.13	.15	.18	.29	.33	.35	.36	.36	.38	.38	.38
DATE	13	29	29	29	29	29	29	29	29	29	29	29
TIME	0715	[illegible]	[illegible]	0720	0722	0733	0754	0754	0754	0744	[illegible]	[illegible]
DEC	.04	.07	.08	.11	.12	.14	.14	.14	.14	.14	.14	.14
DATE	3	3	3	3	3	3	3	3	3	3	3	3
TIME	1455	[illegible]	[illegible]	[illegible]	1931	0553	[illegible]	[illegible]	0808	0808	[illegible]	[illegible]
YEAR	.06	.13	.15	.18	.29	.34	.38	[illegible]	.43	.43	[illegible]	.50
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	5	10	15	30	60	2	3	6	12	24
FRESNO, CALIFORNIA										
JAN	.01	.02	.02	.03	.03	.04	.04	.04	.04	.04	.04
DATE	09	09	09	9	9	9	9	9	9	9	9
TIME	1355	1405	1348	1353	1414	1419	1434	1453	1414	1434	1504	1504
FEB	.05	.08	.11	.15	.20	.25	.29	.34	.37	.39	.43	.44
DATE	04	04	04	04	04	04	04	04	04	04	04	04
TIME	1934	1934	1935	1936	1944	1952	2007	2001	2015	2015	[illegible]	[illegible]
MAR	.03	.05	.07	.09	.13	.17	.21	.24	.27	.29	.33	.34
DATE	02	02	02	02	02	02	02	02	02	02	02	02
TIME	1457	1457	1507	1511	1520	1535	1547	1546	1536	1550	0618	0618
APR	.03	.03	.03	.04	.06	.09	.12	.14	.17	.19	[illegible]	[illegible]
DATE	15	15	15	04	04	04	04	04	04	04	[illegible]	[illegible]
TIME	1432	1037	[illegible]	0555	0615	0615	0622	0618	0618	0630	[illegible]	[illegible]
MAY	T	T	T	T	T	T	T	T	T	T	T	T
DATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUN	.02	.04	.06	.08	.1	.14	.16	.18	.20	.22	.26	.27
DATE	10	10	10	10	10	10	10	10	10	10	10	10
TIME	0625	0628	0633	0638	0648	0655	0657	0657	0702	[illegible]	[illegible]	0543
JUL	T	T	T	T	T	[illegible]	.01	.01	[illegible]	[illegible]	.01	.01
DATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16	16	[illegible]	[illegible]	16	16
TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0205	0205	0205
AUG	.01	.02	.03	.04	.06	.08	.09	.10	.11	.12	.14	.14
DATE	19	19	19	19	19	19	19	19	19	19	19	19
TIME	1020	[illegible]	1030	[illegible]	1045	[illegible]

MAXIMUM SHORT DURATION PRECIPITATION



MAXIMUM SHORT DURATION PRECIPITATION

YEAR 1976

Maximum precipitation in inches (5 to 180 minutes)

	5	10	15	20	30	45	60	80	100	120	150	180
SANTA MARIA, CALIFORNIA												
JAN DATE	T	T	T	T	T	T	T	T	T	T	T	T
TIME												
FEB DATE	.07	.17	.11	.13	.21	.28	.34	.42	.52	.54	.62	.73
TIME	08	08	0015	0020	0035	0115	09	08	08	08	08	09
MAR DATE	.14	.07	.11	.13	.17	.26	.30	.34	.38	.45	.48	.52
TIME	02	02	02	02	02	02	02	02	02	02	08	02
APR DATE	1345	1310	1315	1320	1330	1345	1400	1420	1440	1500	1530	1530
TIME	.04	.05	.06	.09	.12	.18	.21	.27	.31	.39	.43	
MAY DATE	12	12	12	12	12	12	12	12	12	12	12	12
TIME	1753	1750	1755	1755	1755	1755	1755	1755	1755	1755	1755	1825
JUN DATE	.01	.01	.02	.04	.02	.18	.03	.04	.03	.04	.03	.03
TIME	09	09	09	09	09	09	09	09	09	09	09	09
	1835	1800	1815	1820	1830	1835	1835	1835	1835	1835	1835	2015
JUL DATE	.01	.02	.03	.03	.03	.08	.03	.04	.04	.05	.05	.05
TIME	09	09	09	09	09	09	09	09	09	10	10	10
	2345	2250	2245	2300	2310	2325	2345	0005	0025	0045	0115	0500
AUG DATE	T	T	T	T	T	T	T	T	T	T	T	T
TIME												
SEP DATE	.14	.28	.35	.41	.53	.63	.64	.72	.75	.81	.90	.97
TIME	2148	2150	2150	2200	2203	2211	2215	2230	2305	2325	2340	2345
OCT DATE	.13	.14	.14	.14	.15	.15	.15	.15	.15	.16	.16	.17
TIME	01	01	01	01	04	01	01	01	01	01	01	01
	1210	1214	1214	1214	1214	1214	1214	1214	1214	1409	1410	1445
NOV DATE	.02	.03	.03	.04	.04	.05	.05	.05	.07	.07	.07	.07
TIME	11	11	11	11	11	11	11	11	11	11	11	11
	1235	1240	1245	1250	1300	1705	1710	1710	1710	1710	1710	1710
DEC DATE	.13	.18	.20	.22	.28	.34	.40	.46	.51	.52	.52	.52
TIME	30	30	30	30	30	30	30	30	30	30	30	30
	0330	0335	0330	0330	0330	0330	0345	0345	0345	0350	0350	0350
YEAR MONTH	.14	.28	.35	.41	.53	.63	.64	.72	.75	.81	.90	.97
	09	09	09	09	09	09	09	09	09	09	09	09
DENVER, COLORADO												
JAN DATE	.02	.02	.02	.02	.03	.03	.04	.04	.04	.05	.05	.07
TIME	24	24	24	24	18	18	18	18	18	18	18	18
	1504	1504	1504	1504	0825	0825	0848	0913	0930	0950	1000	1100
FEB DATE	.03	.04	.04	.05	.07	.10	.13	.16	.20	.24	.25	.26
TIME	05	05	20	20	20	20	20	20	20	20	20	20
	1646	1646	1646	0656	0701	0701	0655	0700	0716	0735	0815	0815
MAR DATE	.03	.04	.06	.07	.08	.11	.15	.19	.21	.24	.27	.30
TIME	28	28	28	28	28	28	28	28	28	28	28	28
	1655	1700	1710	1720	1730	1734	1800	1820	1840	1900	1915	1950
APR DATE	.02	.03	.04	.05	.07	.09	.11	.13	.17	.19	.20	.24
TIME	30	29	29	29	30	29	29	30	30	30	30	30
	0644	2149	2150	2155	0212	2210	2215	2240	0308	0303	0315	0418
MAY DATE	.08	.10	.11	.13	.13	.15	.20	.24	.30	.33	.35	.36
TIME	25	25	24	24	21	21	22	22	22	22	22	22
	0000	0000	1524	1524	1524	1817	1835	0115	0115	0118	0145	0145
JUN DATE	.10	.14	.19	.20	.21	.21	.21	.21	.21	.21	.21	.21
TIME	01	01	01	01	01	01	01	01	01	01	01	01
	1530	1525	1530	1535	1545	1545	1545	1545	1545	1545	1545	1545
JUL DATE	.17	.24	.30	.46	.66	.94	1.08	1.17	1.20	1.21	1.24	1.26
TIME	25	25	25	25	25	25	25	25	25	25	25	25
	1445	1457	2035	2040	2105	2125	2135	2155	2215	2215	2215	2315
AUG DATE	.13	.19	1.00	1.12	1.24	1.48	1.55	1.58	1.58	1.58	1.58	1.58
TIME	01	01	01	01	01	01	01	01	01	01	01	01
	1430	1440	1440	1445	1445	1445	1515	1520	1507	1527	1547	1627
SEP DATE	.12	.20	.21	.22	.22	.22	.22	.22	.24	.24	.24	.24
TIME	14	14	14	14	14	14	14	14	19	19	19	19
	1358	1403	1348	1403	1403	1403	1403	1404	1854	1854	1854	1854
OCT DATE	.04	.05	.06	.07	.09	.11	.12	.14	.17	.18	.19	.19
TIME	00	06	06	06	06	06	06	06	06	06	06	06
	1720	1025	1030	1035	1430	1045	1200	1120	1140	1200	1200	1200
NOV DATE	.05	.08	.05	.06	.06	.06	.08	.09	.10	.11	.11	.11
TIME	26	26	26	26	26	26	26	26	26	26	26	26
	0435	0435	0435	0435	0435	0435	0435	0435	0435	0450	0450	0450
DEC DATE	.01	.01	.01	.02	.02	.02	.02	.03	.04	.04	.05	.05
TIME	10	10	10	10	10	10	10	10	10	10	10	10
	0015	0015	0015	0145	0145	0145	0145	0255	0320	0320	0410	0410
YEAR MONTH	.50	.80	1.00	1.12	1.24	1.48	1.55	1.58	1.58	1.58	1.58	1.58
	08	08	08	08	08	08	08	08	08	08	08	08
BRIDGEPORT, CONNECTICUT												
JAN DATE	.06	.07	.12	.18	.22	.25	.28	.35	.38	.42	.53	.56
TIME	27	27	27	27	27	27	27	27	27	27	27	27
	1051	1000	0945	0950	0940	0930	0915	0915	0915	0905	0900	0900
FEB DATE	.10	.18	.17	.19	.27	.34	.36	.39	.41	.47	.54	.58
TIME	28	28	28	28	28	28	28	28	28	01	01	02
	1742	2324	2340	2132	2144	2149	2200	2207	2227	1145	1115	1100
MAR DATE	.07	.11	.15	.18	.23	.28	.35	.50	.53	.59	.67	.75
TIME	13	13	13	13	13	13	13	13	13	13	13	13
	0435	0140	0140	0140	0145	0200	0215	0235	0255	0315	0240	0240
APR DATE	.05	.10	.13	.15	.20	.30	.40	.60	.65	.70	.75	
TIME	01	01	01	01	21	21	21	01	01	01	01	01
	0855	0855	0848	0841	0830	0820	0800	0745	0815	0800	0800	0800
MAY DATE	.15	.23	.30	.30	.30	.32	.35	.45	.45	.47	.50	.55
TIME	18	18	18	18	18	18	18	18	19	19	19	
	1645	1650	1645	1705	1715	1730	1745	1805	1825	0235	0235	0235
JUN DATE	.20	.30	.40	.48	.51	.61	.73	.93	1.13	1.13	1.16	1.16
TIME	30	30	30	30	30	30	30	30	30	30	30	30
	2009	2003	2018	2014	2024	2039	2054	2114	2134	1854	2244	2244
JUL DATE	.15	.30	.39	.49	.50	.62	.70	.79	.80	.80	1.05	1.07
TIME	30	30	30	30	30	30	30	30	30	30	30	30
	0105	0105	0105	0105	0105	0105	0105	0105	0105	0210	0210	0210
AUG DATE	.26	.39	.65	.88	1.09	1.29	1.45	1.60	1.65	1.80	1.85	1.87
TIME	27	27	27	27	27	27	27	27	27	27	27	27
	0655	0700	0705	0715	0720	0735	0745	0805	0840	0850	0928	0950
SEP DATE	.07	.17	.13	.15	.18	.18	.20	.21	.22	.23	.25	.25
TIME	27	27	27	27	27	27	27	27	02	02	02	02
	1925	1935	1935	1940	1956	2005	2956	0925	0945	1005	1035	1035
OCT DATE	.14	.24	.26	.33	.46	.58	.66	.80	1.09	1.13	1.23	1.28
TIME	20	20	20	20	20	20	20	20	20	20	20	20
	2258	2304	2308	2147	2157	2214	2227	2302	2303	1803	2312	2312
NOV DATE	.03	.04	.07	.08	.08	.08	.08	.10	.13	.13	.13	.13
TIME	10	10	10	10	10	10	10	10	29	29	29	29
	0915	0914	0915	0920	0925	0925	0925	0925	0600	0600	0600	0600
DEC DATE	.10	.15	.16	.18	.27	.36	.39	.42	.47	.52	.58	.65
TIME	07	07	07	07	07	07	07	07	07	07	07	07
	1215	1229	1230	1232	1240	1257	1315	1320	1340	1400	1400	1315
YEAR MONTH	.26	.55	.65	.88	1.09	1.29	1.45	1.60	1.65	1.80	1.85	1.87
	08	08	08	08	08	08	08	08	08	08	08	08

Maximum precipitation in inches (5 to 180 minutes)

	5	10	15	20	30	45	60	80	100	120	150	180
ALAMOSA, COLORADO												
JAN DATE	.01	.01	.02	.03	.03	.03	.04	.04	.04	.04	.04	.04
TIME	24	24	24	24	24	24	24	24	24	24	24	24
	0926	0926	0926	0953	0953	0953	0953	0953	1445	1445	1445	1045
FEB DATE	M	M	M	M	M	M	M	M	M	M	M	M
TIME												
MAR DATE	.02	.03	.04	.05	.06	.07	.08	.07	.07	.07	.08	.08
TIME	18	18	18	18	18	18	18	18	18	18	18	18
	0923	0923	0926	0330	0330	0330	0330	0330	0345	0345	0345	0345
APR DATE	.03	.05	.06	.07	.10	.11	.13	.14	.16	.18	.19	.19
TIME	12	12	12	12	12	12	12	12	12	12	12	12
	1643	1643	1648	1748	1752	1807	1825	1825	1840	1840	1945	1945
MAY DATE	.12	.20	.24	.28	.33	.36	.36	.36	.36	.39	.39	.39
TIME	06	06	06	06	06	06	06	06	06	06	06	06
	1523	1530	1534	1539	1549	1549	1549	1549	1635	1700	1715	1715
JUN DATE	.01	.02	.02	.02	.02	.02	.02	.03	.04	.04	.04	.04
TIME	06	06	06	06	06	06	06	06	06	06	06	06
	1755	1755	1730	1730	1730	1730	1730	1730	1840	1900	1900	1900
JUL DATE	.10	.20	.25	.27	.33	.38	.39	.40	.40	.40	.40	.40
TIME	13	13	13	13	13	13	13	13	13	13	13	13
	1527	1537	1912	1547	1527	1542	1557	1617	1630	1630	1630	1630
AUG DATE	.11	.14	.15	.18	.20	.21	.21	.21	.23	.24	.24	.24
TIME	08	08	17	17	17	17	17	17	01	01	01	01
	1605	1809	1707	1713	1716	1722	1747	1807	1852	1930	1930	2006
SEP DATE	.03	.05	.06	.07	.09	.14	.17	.21	.26	.32	.34	.36
TIME	27	27	27	27	27	27	27	27	27	27	27	27
	1744	1744	1815	1817	1817	1817	1817	1830	1915	1915	1948	2015
OCT DATE	.02	.04	.04	.05	.06	.08	.08	.08	.09	.19	.20	.21
TIME	25	26	26	26	26	26	26	26	26	26	26	26
	0252	0339	0343	0411	0411	0411	0411	0411	0411	0411	0411	0411
NOV DATE	.02	.02	.02	.02	.02	.02	.03	.04	.05	.07	.07	.07
TIME	28	28	28	28	28	28	28	28	28	28	28	28
	1710	0750	0439	0444	0447	0447	0447	0439	0439	0439	0439	0439
DEC DATE	T	T	.01	.02	.02	.02	.03	.03	.04	.04	.04	.04
TIME			03	03	03	03	03	03	03	01	01	01
			0958	1000	1009	1015	1016	1016	1440	1440	1440	0440
YEAR MONTH	.16	.20	.25	.28	.33	.38	.39	.40	.40	.40	.40	.40
	07	07	07	07	07	07	07	07	07	07	07	07
GRAND JUNCTION, COLORADO												
JAN DATE	.01	.01	.02	.02	.02	.03	.04	.05	.05	.05	.06	.06
TIME	06	06	06	06	06	06	06	06	06	06	06	06
	0945	0945	0955	0115	0115	0145	0145	0145	0145	0145	0330	0330
FEB DATE	.03	.05	.06	.07	.09	.12	.13	.15	.16	.19	.21	.22
TIME	15	15	15	15	15	15	15	15	20	20	20	20
	1346	1359	1401	1405	1406	1410	1415	14.5	0220	0245	0300	0345
MAR DATE	.03	.04	.04	.05	.07	.09	.11	.12	.12	.12	.16	.17
TIME	01	01	01	01	04	02	02	02	02	02	02	02
	1915	1759	0200	0205	0215	0140	0140	0140	0145	0145	0205	0205
APR DATE	.05	.07	.08	.08	.08	.08	.08	.10	.11	.11	.11	.11
TIME	16	16	16	16	16	16	16	16	16	16	16	16
	0213	1510	1515	1521	1521	1530	0753	0805	0825	0835	0845	0930
MAY DATE	.05	.10	.09	.11	.12	.14	.17	.20	.22	.24	.25	.29
TIME	08	08	08	08	08	08	08	08	08	08	08	08
	0213	0213	0213	0213	0213	0223	0223	0223	0228	0228	0228	0946
JUN DATE	.12	.09	.09	.09	.09	.09	.09	.10	.10	.11	.11	.11
TIME	17	17	17	17	17	17	17	17	17	17	17	17
	1435	1440	1440	1440	1440	1442	1443	1440	1440	1440	1440	1435
JUL DATE	.13	.08	.10	.05	.06	.06	.06	.07	.06	.07	.08	.08
TIME	17	17	17	17	17	17	17	17	17	17	17	13
	1730	2033	2235	2240	2250	2250	2315	2330	2330	2330	0120	0120
AUG DATE	.02	.04	.05	.05	.07	.08	.09	.12	.14	.14	.15	.15
TIME	24	24	24	24	24	24	24	24	24	24	24	24
	1943	1945	1947	0550	0555	0555	0555	0555	0615	0620	0620	0620
SEP DATE	.02	.04	.05	.07	.08	.09	.12	.14	.14	.15	.15	.15
TIME	26	26	26	26	26	26	26	26	26	26	26	26
	1547	1547	1547	1547	1547	1547	1547	1547	1547	1547	1547	1547
OCT DATE	.03	.04	.07	.09	.12	.14	.16	.16	.16	.22	.28	.28
TIME	02	02	02	02	02	02	02	02	02	02	02	02
	1600	1600	1600	1600	1600	1610	1625	1633	1633	1720	1755	1815
NOV DATE	.01	.02	.03	.04	.04	.04	.04	.04	.04	.04	.04	.04
TIME	14	14	14	14	14	14	14	14	14	14	14	14
	2235	2238	2230	2235	2243	2258	2313	2325	2325	2325	2325	2325
DEC DATE	T	T	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
TIME			05	05	05	05	05	05	05	05	05	05
			0900	0911	0926	0926	0926	0930	0930	0930	1105	1105
YEAR MONTH	.22	.33	.32	.32	.32	.32	.32	.32	.32	.32	.32	.32
	09	09	09	09	09	09	09	09	09	09	09	09
HARTFORD, CONNECTICUT												
JAN DATE	.08	.10	.13	.17	.21	.26	.31	.35	.50	.57	.60	.75
TIME	27	27	27	27	27	27	27	27	27	27	27	27
	0647	0750	0845	0852	0705	0705	0715	0850	0745	0815	0845	0915
FEB DATE	.07	.08	.10	.10	.16	.19	.22	.29	.37	.39	.55	.56
TIME	02	19	19	19	19	19	02	02	02	02	02	02
	0145	2332	2335	2140	2148	0140	0140	0140	0220	0240	0250	0330
MAR DATE	.20	.24	.25	.25	.25	.25	.25	.25	.25	.26	.33	.39
TIME	21	21	21	21	21	21	11	11	11	11	16	16
	10	1604	1607	1607	1607	1607	1607	1607	1607	1713	1700	1700
APR DATE	.17	.27	.34	.42	.50	.57	.80	.89	1.11	1.31	1.42	1.42
TIME	01	01	01	01	01	01	01	01	01	01	01	01
	0855	1651	1648	1641	1633	1633	1633	1633	1633	1633	1633	1633
MAY DATE	.15	.19	.23	.23	.26	.36	.43	.53	.60	.66	.83	
TIME	12	12	12	12								
	0147	0157	0152	0152	2215	2215	2215	2213	2215	2215	2215	2215
JUN DATE	.43	.57	.53	.54	.58	.76	.85	.92	.92	1.09	1.16	1.16
TIME	30	30	30	30	30	30	30	30	30	30	30	30
	2035	2047	2045	2050	2305	2345	2345	0000	0000	0130	0400	0400
JUL DATE	.19	.29	.43	.57	.72	1.01	1.29	1.46	1.55	.64	.71	1.72
TIME	12	12	12	12	12	12	12	12	12	24	24	24
	0146	0131	0133	0133	0147	0147	0147	0147	0210	0210	0230	0230
AUG DATE	.18	.21	.23	.39	.43	.45	.54	.63	.67	.72	.72	.73
TIME	13	13	13	13	13	13	13	13	07	07	07	07
	0243	0243	0243	2205	0243	0243	2.3	2240	2240	0745	0815	0845
SEP DATE	.16	.26	.26	.26	.26	.27	.30	.30	.30	.32	.45	.45
TIME	17	17	17	17	17	17	17	17	17	17	17	17
	1443	1650	1852	1858	1856	1856	1856	1930	2105	2105	2135	2135
OCT DATE	.17	.23	.28	.37	.55	.66	.76	.85	.95	.98	1.08	1.17
TIME	20	20	20	20	20	20	20	20	20	20	20	20
	2308	2317	2313	2317	2317	2320	2350	2317	2317	2317	2317	2345
NOV DATE	.03	.04	.06	.06	.06	.09	.09	.10	.13	.13	.14	.14
TIME	05	05	05	05	05	05	05	05	05	05	05	05
	1605	1605	1605	1605	1605	1635	1635	1716	1730	1730	1730	1730
DEC DATE	.14	.24	.27	.31	.40	.53	.55	.65	.85	.92	1.03	1.13
TIME	07	07	07	07	07	07	07	07	07	07	07	07
	1250	1253	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
YEAR MONTH	.43	.57	.53	.57	.72	1.01	1.29	1.46	1.55	1.64	.72	1.72
	06	06	06	07	07	07	07	07	07	07	07	07

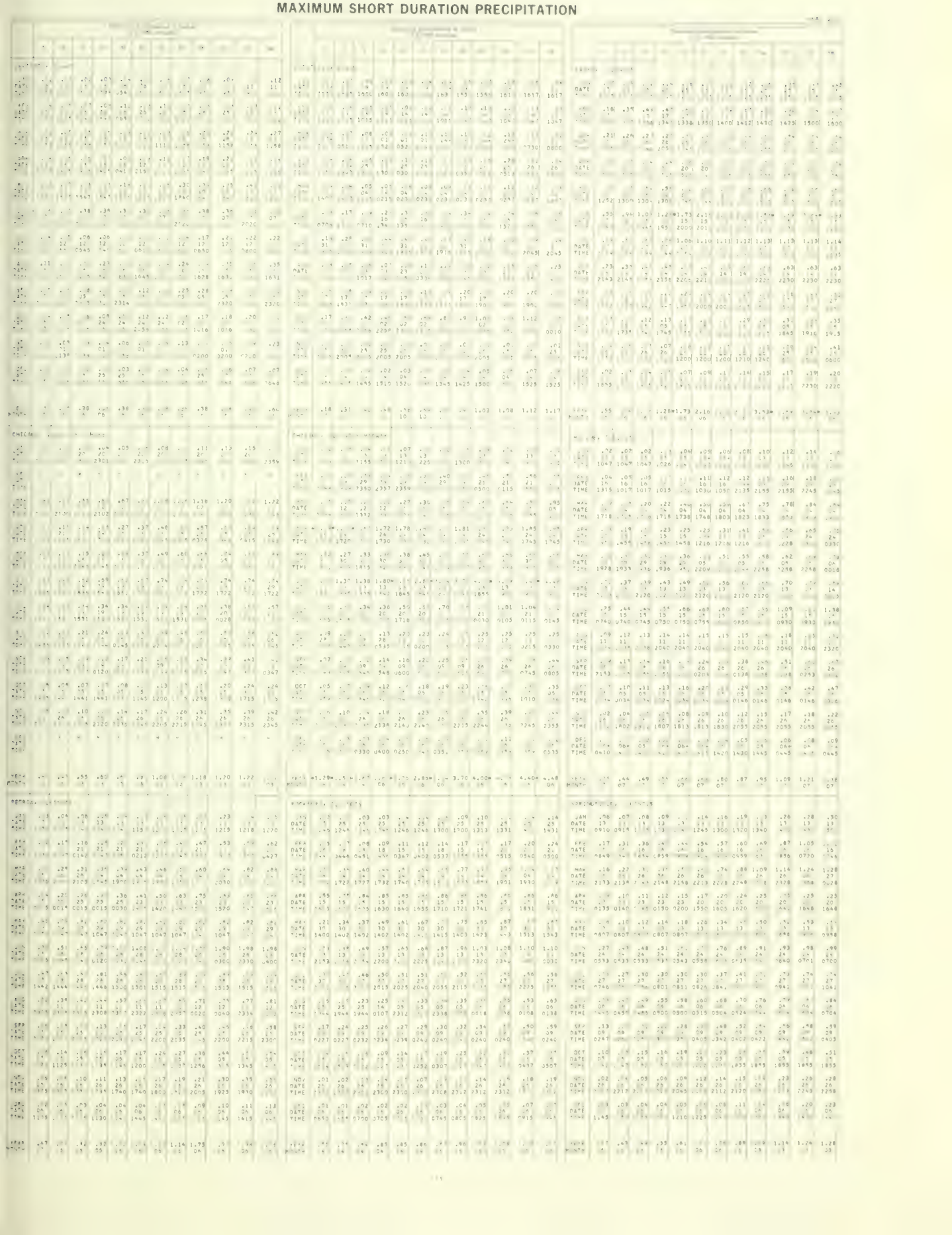
Maximum precipitation in inches (5 to 180 minutes)

	5	10	15	20	30	45	60	80	100	120	150	180
COLORADO SPRINGS, COLORADO												
JAN DATE	.01	.02	.03	.03	.04	.04	.05	.08	.09	.11	.13	.14
TIME	18	18	18	18	18	06	06	06	06	06	06	06
	1515	1529	1800	1605	1615	1633	1638	1642	1642	1649	1655	17.7
FEB DATE	T	.01	.01	.01	.02	.02	.02	.03	.03	.04	.04	.05
TIME		1447	1447	1447	1447	1447	1447	1447	1447	1447	1447	1447
MAR DATE	.03	.03	.03	.04	.06	.08	.09	.10	.12	.13	.14	.15
TIME	28	28	28	28	28	28	28	28	28	28	28	28
	1647	1647	1647	1647	1647	1647	1647	1647	1647	1647	1647	1647
APR DATE	.03	.04	.06	.08	.09	.10	.12	.13	.14	.15	.15	.15
TIME	28	28	28	28	28	28	28	28	28	28	28	28
	1915	1915	1913	1907	1907	1907	1907	1907	1907	1907	1907	1870
MAY DATE	.04	.06	.07	.08	.09	.10	.12	.13	.14	.15	.15	.15
TIME	28	28	28	28	28	28	28	28	28	28	28	28
	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1870
JUN DATE	.04	.06	.07	.08	.09	.10	.12	.13	.14	.15	.15	.15
TIME	06	06	06	06	06	06	06	06	06	06	06	06
	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1825
JUL DATE	.04	.06	.08	.09	.11	.13	.14	.15	.16	.17	.17	.17
TIME	06	06	06	06	06	06	06	06	06	06	06	06
	1945	1945	1945	1945	1945	1945	1945	1945	1945	1715	1735	1755
AUG DATE	.04	.06	.08	.08	.09	.10	.12	.13	.14	.15	.15	.15
TIME	06	06	06	06	06	06	06	06	06	06	06	06
	1945	1945	1945	1945	1945	1945	1945	1945	1945	1715	1735	1755
SEP DATE	.04	.05	.06	.08	.09	.10	.12	.13	.14	.15	.15	.15
TIME	06	06	06	06	06	06	06	06	06	06	06	06
	1945	1945	1945	1945	1945	1945	1945	1945	1945	1715	1735	1755
OCT DATE	.04	.06	.07	.08	.09	.10	.12	.13	.14	.15	.15	.15
TIME	06	06	06	06	06	06	06	06	06	06	06	06
	1945	1945	1945	1945	1945	1945	1945	1945	1945	1715	1735	1755
NOV DATE	.04	.06	.07	.08	.09	.10	.12	.13	.14	.15	.15	.15
TIME	06	06	06	06	06	06	06	06	06	06	06	06
	1945	1945	1945	1945	1945	1945	1945	1945	1945	1715	1735	1755
DEC DATE	T	.01	.01	.01	.01	.02	.03	.03	.03	.03	.03	.04
TIME		30	30	30	30	30	30	30	30	30	30	30
		1445	1445	1450	1450	1450	1450	1450	1450	1450	1450	1450
YEAR MONTH	.04	.06	.07	.08	.09	.10	.12	.13	.14	.15	.15	.15
	08	08	08	08	08	08	08	08	08	08	08	08
PUEBLO, COLORADO												
JAN DATE	.01	.01	.02	.02	.02	.03	.03	.03	.04	.05	.06	.06
TIME	24	24	24	24	24	24	24	24	24	24	24	24
	1504	1504	1504	1504	1504	1504	1504	1504	1504	1504	1504	1504
FEB DATE	T	T	T	.01	.01	.02	.02	.03	.03	.03	.03	.03
TIME				05	04	04	04	04	04	04	04	04
				1414	1428	1425	1443	1443	1443	1443	1443	1443
MAR DATE	.02	.03	.03	.04	.06	.09	.11	.15	.19	.21	.24	.28
TIME	03	03	03	03	03	03	03	03	03	03	03	03
	1645	1645	1645	2145	2050	2100	2045	2105	2115	2135	2205	2235
APR DATE	.03	.04	.06	.07	.09	.11	.14	.18	.22	.25	.27	.29
TIME	29	29	29	29	29	29	29	29	29	29	29	29
	1915	1915	1915	1915	1915	1915	1915	1915

MAXIMUM SHORT DURATION PRECIPITATION

YEAR 197

MAXIMUM SHORT DURATION PRECIPITATION



MAXIMUM SHORT DURATION PRECIPITATION

YEAR 1976

Maximum precipitation in inches (5 to 180 minutes)

EVANSVILLE, INDIANA

	5	10	15	30	45	60	2	3	6	12	24	48
JAN	.07	.07	.08	.09	.11	.14	.17	.19	.21	.26	.4	.34
DATE	13	13	24	25	25	25						
TIME	1319	1324	1845	0610	0624	0630	0630	0625	0720	0605	0 5	0605
FEB	.13	.17	.20	.24	.26	.32	.47	.60	.65	.69	.73	.79
DATE	21	21	21	21	21	7	17	17	17	17	17	17
TIME	0025	0325	0335	1550	1540	1540	1540	1600	1615	1645	1715	
MAR	.16	.23	.24	.26	.29	.35	.40	.46	.48	.45	.45	.46
DATE	27	27	27	27	20	20	20	20	20	20	20	20
TIME	0359	0415	0 0	0412	1745	1800	1815	1835	1855	1915	0 5	1930
APR	.13	.17	.17	.22	.25	.37	.44	.4	.43	.56	.6	.6
DATE	21	21	21	21	21	24	24	24	24	24	24	24
TIME	0215	0225	0225	0220	0230	1522	1537	1547	1547	1605	1622	1655
MAY	.19	.24	.43	.48	.52	.67	.85	.86	.96	.80	.97	.91
DATE	5	5	31	31	30	30	30	30	30	31	31	31
TIME	1445	1447	1925	1925	1925	1925	1930	1950	2000	2000	2015	1755
JUN	.17	.21	.62	.78	.79	.85	.92	.99	1.14	1.71	1.7	1.73
DATE	24	25	25	25	25	25	25	25	25	25	25	25
TIME	0315	0345	0512	0517	0515	0515	0515	0515	0507	0527	0 3	0627
JUL	.17	.24	.33	.32	.33	.44	.61	.62	.63	.80	.83	.87
DATE	29	31	28	28	28	28	28	28	28	28	28	28
TIME	2028	2045	2142	2155	2205	2215	2215	2213	2243	2303	2303	2003
AUG	.09	.09	.10	.10	.10	.10	.11	.10	.11	.12	.12	.12
DATE	9	9	9	9	9	9	9	9	9	9	9	9
TIME	2108	2108	2216	2221	2231	2246	2301	2311	2341	0001	0031	0101
SEP	.27	.44	.46	.78	1.01	1.19	1.52	1.65	1.69	1.69	1.7	1.70
DATE	01	01	01	01	01	01	01	01	01	01	01	01
TIME	0442	0447	0448	0457	0505	0515	5	0520	0535	0555	0545	0645
OCT	.8	.13	.6	.20	.24	.34	.44	.54	.61	.66	.78	.88
DATE	24	24	24	24	24	23	23	23	23	23	23	23
TIME	1928	1937	1937	0245	1447	1645	1700	1740	1810	1830	1910	
NOV	.03	.5	.07	.08	.11	.15	.18	.22	.25	.28	.35	.44
DATE	26	26	26	26	26	26	26	26	26	26	26	26
TIME	0720	0720	0720	0720	0721	0720	0720	0720	0720	0720	0720	0720
DEC	M	M	M	M	M	M	M	M	M	M	M	M
DATE												
TIME												
YEAR	.78	.94	.46	.78	1.01	1.19	1.52	1.66	1.69	1.71	1.72	1.73
MONTH	04	09	09	09	09	09	09	09	09	04	4	06

FORT WAYNE, INDIANA

	5	10	15	30	45	60	2	3	6	12	24	48
JAN	.39	.4	.58	.11	.3	.15	.17	.24	.29	.33	.43	.48
DATE	13	13	13	13	13	13	13	12	13	13	13	13
TIME	1306	1403	1408	1413	1423	1438	1453	1513	1533	1325	1355	1425
FEB	.9	.11	.16	.18	.24	.33	.36	.48	.5	.52	.63	.65
DATE	21	21	21	21	21	21	21	21	21	21	21	21
TIME	1633	1638	1645	1650	0345	0545	0	0	0	0700	0715	0745
MAR	.20	.29	.29	.3	.3	.33	.3	.36	.40	.41	.42	.42
DATE	4	4	4	4	4	4	4	4	4	05	5	05
TIME	1445	1450	1455	0	1510	1525	1540	1600	0030	0100	0	0200
APR	.2	.12	.14	.16	.21	.28	.35	.41	.48	.54	.55	.62
DATE	24	25	25	25	25	25	25	25	24	24	25	25
TIME	1717	1722	1727	1714	1724	1744	1744	1744	1804	1844	0115	2455
MAY	.12	.1	.23	.27	.29	.33	.3	.31	.31	.32	.36	.44
DATE	30	17	17	17	17	17	17	17	6A	06	06	06
TIME	1448	0319	0318	0321	0333	0348	0403	0423	1540	1600	1630	0
JUN	.24	.39	.40	.44	.45	.51	.53	.63	.65	.65	.75	.75
DATE	18	18	18	18	15	15	15	15	15	15	15	24
TIME	1751	1754	1801	1806	1810	1833	1853	2330	2330	33	1330	1345
JUL	.26	.30	.44	.47	.73	.8	.85	.89	.96	1.02	1.3	1.04
DATE	28	28	28	28	28	28	28	28	28	28	28	28
TIME	2034	2039	2046	2049	2054	2114	2129	2149	2209	2229	2249	2305
AUG	.19	.27	.3	.31	.32	.44	.52	.63	.79	.8	.83	.85
DATE	12	12	12	12	12	06	06	06	06	06	06	06
TIME	2012	2214	2220	2225	2235	0015	0102	1014	1058	1102	1132	
SEP	.23	.29	.41	.44	.48	.55	.68	.81	.86	.78	.95	
DATE	01	01	01	01	01	01	09	09	09	09	09	
TIME	1317	1325	1327	1327	1330	1347	1	5	1438	1458	1518	1425
OCT	.15	.30	.33	.34	.5	.61	.5	.54	.61	.67	.68	.72
DATE	08	05	05	05	05	05	05	05	05	05	05	05
TIME	1012	1017	1022	1027	103	1	1055	1115	1	1035	1	1135
NOV	.06	.07	.07	.07	.07	.8	.11	.13	.1	.18	.19	
DATE	26	26	27	27	27	26	26	26	26	26	26	
TIME	2350	2359	0000	0005	0015	30	0	0020	40	0500	0530	0600
DEC	.03	.04	.06	.07	.1	.13	.1	.15	.15	.15	.15	.15
DATE	20	20	20	20	20	20	20	20	20	20	20	20
TIME		0025	0030	0035	0045		0056		56	0056		056
YEAR	.26	.52	.64	.67	.73	.8	.85	.89	.96	1.02	1.3	1.04
MONTH	07	07	07	07	07	07	07	07	07	07	07	07

INDIANAPOLIS, INDIANA

	5	10	15	30	45	60	2	3	6	12	24	48
JAN	.7	.12	.13	.14	.17	.25	.8	.32	.35	.40	.48	.54
DATE	13	13	13	13	13	13	13	13	13	13	13	13
TIME	1444	1349	1354	1354	1409	1424	1439	1448	1440	1440	1540	1549
FEB	.16	.23	.3	.36	.39	.39	.39	.39	.39	.44	.51	.55
DATE	19	19	19	20	16	16	16	16	16	16	16	05
TIME	1754	1756	1801	1806	2304	2307	2307	2307	2307	0953	1025	053
MAR	.20	.29	.40	.43	.48	.5	.66	.78	.81	.83	.84	.83
DATE	20	20	20	20	20	20	20	20	20	20	20	20
TIME	1745	1750	1755	1800	1810	1825	1840	1900	1920	940	5	935
APR	.13	.17	.17	.14	.18	.24	.3	.25	.35	.26	.26	.27
DATE	24	24	24	24	24	24	24	24	24	24	24	24
TIME	1545	1555	1555	1405	1410	1425	1440	1500	1520	540	1610	604
MAY	.12	.21	.30	.39	.4	.43	.54	.65	.72	.74	.77	.76
DATE	6A	06	06	06	06	06	06	06	06	06	06	06
TIME	1530	1555	1600	1610	16	1625	1640	1700	1720	1740	1810	1842
JUN	.15	.24	.28	.28	.3	.5	.5	.69	.72	.80	.99	.99
DATE	8	28	28	28	28	28	28	28	28	28	28	28
TIME	1751	1756	1801	1806	1811	1832	0	0657	0712	0752	814	912
JUL	.24	.34	.38	.39	.4	.44	.47	.50	.61	.54	.54	.54
DATE	31	31	31	31	31	31	27	27	27	27	27	27
TIME	2028	2045	2100	2110	0355	0405	0	0	0	0500	520	604
AUG	.42	.2A	1.40	1.64	1.92	2.04	2.24	2.97	3.12	3.37	3.58	3.79
DATE	9	06	06	06	06	06	06	06	06	06	06	06
TIME	0440	0445	0440	0500	0510	0525	0535	0550	0	0	0	0
SEP	.47	.2A	.47	.47	.49	.49	.49	.49	.49	.49	.49	.49
DATE	18	18	18	18	23	23	23	23	23	23	23	23
TIME	1632	1638	1638	1630	1644	1655	0710	0735	0755	0800	0830	0900
OCT	.18	.28	.35	.45	.66	.68	.69	.70	.78	.79	.92	.91
DATE	4	4	4	4	4	4	4	4	4	4	4	4
TIME	1844	1849	1850	1844	1852	1903	1919	1940	2000	2020	0048	2048
NOV	.19	.24	.28	.35	.40	.48	.57	.67	.75	.80	.85	.85
DATE	26	26	26	26	26	26	26	26	26	26	26	26
TIME	1748	1755	1753	1758	1807	1822	1837	1857	1917	1937	2017	2037
DEC	.34	.60	.75	.82	1.08	1.32	1.50	1.82	2.15	2.17	2.19	2.21
DATE	21	21	21	21	21	21	21	21	21	21	21	21
TIME	1036	1100	1100	1100	1100	1108	1125	1145	1205	1225	1245	1305
AUG	.15	.27	.24	.29	.38	.42	.44	.44	.47	.56	.63	.69
DATE	9	9	9	9	9	9	9	9	9	9	9	9
TIME	1040	0700	0705	0710	0715	0800	0	0815	0842	0900	0930	1000
SEP	.16	.28	.28	.29	.28	.29	.32	.38	.45	.48	.52	.53
DATE	9	9	9	9	9	9	9	9	9	9	9	9
TIME	2300	2305	2305	2305	2315	2305	0740	0800	0815	0817	0847	0917
OCT	.07	.4	.16	.17	.24	.3	.43	.50	.59	.65	.89	1.00
DATE	6	06	06	06	06	06	06	06	06	06	06	06
TIME	0245	0325	0325	0325	0330	0325	0330	0335	0335	0400	0455	0455
NOV	.17	.12	.12	.12	.16	.24	.29	.34	.44	.48	.5	.62
DATE	24	26	26	26	26	26	26	26	26	26	26	26
TIME	0240	0255	0250	0255	0115	0100	0115	0130	0145	55	0240	0310
DEC	.04	.04	.7	.07	.8	.10	.3	.16	.21	.24	.25	.27
DATE	21	21	21	21	21	21	21	21	21	20	21	21
TIME	0645	0645	0645	0655	0655	0745	0725	0745	0810	0825	0900	0915
YEAR	.59	.9	1.20	.47	1.52	.62	.58	.82	.5	2.17	.7	2.21
MONTH	05	06	06	06	06	06	07	07	07	07	07	07

SIOUX CITY, IOWA

	5	10	15	30	45	60	2	3	6	12	24	48
JAN	.01	.01	.02	.02	.02	.2	.2	.03	.03	.03	.04	.05
DATE	01	01	01	01	01	01	01	01	01	01	01	01
TIME	1100	1100	1100	1100	1100	1100	1100	1940	1940	1940	2045	2045
FEB	.10	.19	.17	.22	.23	.25	.8	.32	.32	.32	.34	.37
DATE	14	14	14	14	14	14	14	14	14	14	14	14
TIME	1940	2140	2140	2140	2140	2145	2205	2220	2235	2235	2235	2330
MAR	.08	.08	.08	.8	.8	.8	.8	.24	.25	.28	.32	.36
DATE	28	28	28	28	28	28	28	28	28	28	28	28
TIME	2057	2057	2132	2137	2142	2202	2154	2215	2215	1902	1930	1930
APR	.16	.20	.22	.24	.26	.26	.33	.33	.39	.43		
DATE	15	15	15	15	15	15	23	23	24	24		
TIME	0347	0357	0355	0359	0358	0400	0401	0400	0358	1414		
MAY	.19	.30	.34	.36	.37	.45	.5	.59	.61	.63	.67	.67
DATE	21	21	21	21	21	21	22	22	22	22	22	22
TIME	1948	1948	1952	1955	2005	2358	0000	0015	0040	0100	0115	0125
JUN	.10	.18	.18	.22	.26	.33	.37	.40	.42	.45	.50	.54
DATE	24	24	24	24	24	24	24	24	24	24	24	24
TIME	1945	1955	0354	0359	0405	0400	0400	0400	0433	0503		
JUL	.13	.24	.27	.34	.42	.52	.57	.64	.71	.74	.83	.85
DATE	26	26	26	26	26	26	26	26	26	26	26	26
TIME	0300	0307	0307	0307	0315	0321	0330	2352	0320	0337	0410	0415
AUG	.04	.06	.06	.07	.07	.12	.14	.14	.14	.14	.14	.14
DATE	16	16	16	16	16	16	16	16	16	16	16	16
TIME	0844	0850	0850	0850	0850	0850	0850	0850	0850	48	0850	
SEP	.17	.39	.38	.50	.66	.72	.75	.75	.76	.86	.91	.91
DATE	13	13	13	13	13	13	13	13	13	13	13	13
TIME	0440	0445	0450	0455	0457	0958	1	1037	1102	1117	1147	1147
OCT	.4	.4	.4	.4	.4	.5	.5	.6	.8	.9	.10	.10
DATE	13	13	13	03	03	03	04	04	04	04	04	04
TIME	2342	2342	2342	2342	2342	0025	0025	0100	0120	0140	0140	0140
NOV	T	T	T	T	T	T	.2	.2	.2	.2	.2	.2
DATE				30	30	30	30	30	30	30	30	30
TIME				0945	0945	0945	1020	1020	2255	2255	2255	2255
DEC	.01	.02	.02	.03	.04	.05	.7	.09	.11	.12	.12	.14
DATE	05	05	05	05	05	05	05	05	05	05	05	05
TIME	1545	1545	1540	1540	1540	1540	1540	1540	1540	1540	1540	1540
YEAR	.19	.33	.38	.5	.66	.72	.75	.75	.76	.86	.91	.91
MONTH	05	09	09	09	09	09	09	09	09	09	09	09

WATERLOO, IOWA

	5	10	15	30	45	60	2	3	6	12	24	48
JAN	T		T		.02	.02	.02	.3	.03	.04	.06	.07
DATE					25	25	25	25	25	25	25	25
TIME					1440	1443	1440	1455	1455	1535	1555	1555
FEB	.03	.04	.06	.08	.10	.14	.17	.17	.18	.24	.24	.24
DATE	16	16	16	16	16	16	16	16	16	21	21	21
TIME	1315	1332	1340	1332	1333	1352	2200	2335	2335	700	0001	0001
MAR	.07	.7	.13	.14	.17	.23	.3	.38	.42	.46	.5	.5
DATE	29	29	29	29	29	29	5	5	5	30	30	30
TIME	2345	2345	2345	25	2315	2315	2315	2350		0030	0025	0025
APR	.30	.38	.48	.38	.38	.42	.44	.48	.69	.82	.86	
DATE	7	17	17	17	17	8	8	8	8	8	8	
TIME	1115	1115	1115	1115	1115	1115	1115	1115	1115	0133		
MAY	.15	.08	.09	.09	.11	.18	.19	.19	.19	.19	.20	.21
DATE	9	9	9	29	29	29	28	28	28	28	28	28
TIME	2420	0431	0432	0431	0	2359	2359	2359	2359	2359	2359	2359
JUN	.10	.22	.20	.22	.26	.34	.38	.44	.52	.54	.49	.86
DATE	25	25	25	25	25	25	25	25	25	3	3	3
TIME	0447	0457	0457	0502	0	0	0	0	0	1837	1837	1837
JUL	.32	.63	.71	.99	1.14	1.25	1.38	1.40	1.5	1.56	1.74	1.88
DATE	8	28	28	28	28	28	28	28	28	28	28	28
TIME	0048	0103	0108	0113	0123	0134	0153		0233	0243	0323	0353
AUG	.10	.20	.2	.3	.37	.19	.40	M	M	M	M	M
DATE	23	23	23	23	23	23	23					
TIME	1318	1308	1313	1308	1328	1343	14	0				
SEP	.06	.11	.14	.16	.28	.35	.49	.61	.75	.86	1.32	1.02
DATE	9	19	19	19	19	19	19	19	19	9	9	9
TIME	0622	0622	0622	0622	0622	0622	0622	0622	0743	0749	0804	0804
OCT	.04	.08	.09	.10	.3	.2	.26	.29	.24	.30	.30	.30
DATE	23	23	23	23	23	24	24	24	24	24	24	24
TIME	2341	2341	234	2341	2358	0004	0010	0020	0035	0045	0045	0045
NOV	.01	.01	.02	.03	.03	.03	.03	.03	.04	.04	.04	.04
DATE	23	23	23	23	23	23	23	24	24	24	24	24
TIME	2343	2343	2343	2343	2343	2343	2343	2343	0017	17	17	0017
DEC	.01	.01	.02	.02	.03	.04	.6	.08	.15	.6	.13	.14
DATE	05	06	06	06	06	06	06	06	06	06	06	06
TIME	1549	1549	1549	1702	1702	1702	1702	1702	1702	1702	1702	1702
YEAR	.32	.63	.71	.99	1.14	1.25	1.38	1.40	1.45	1.56	1.74	1.88
MONTH	07	07	07	07	07	07	07	07	07	07	07	07

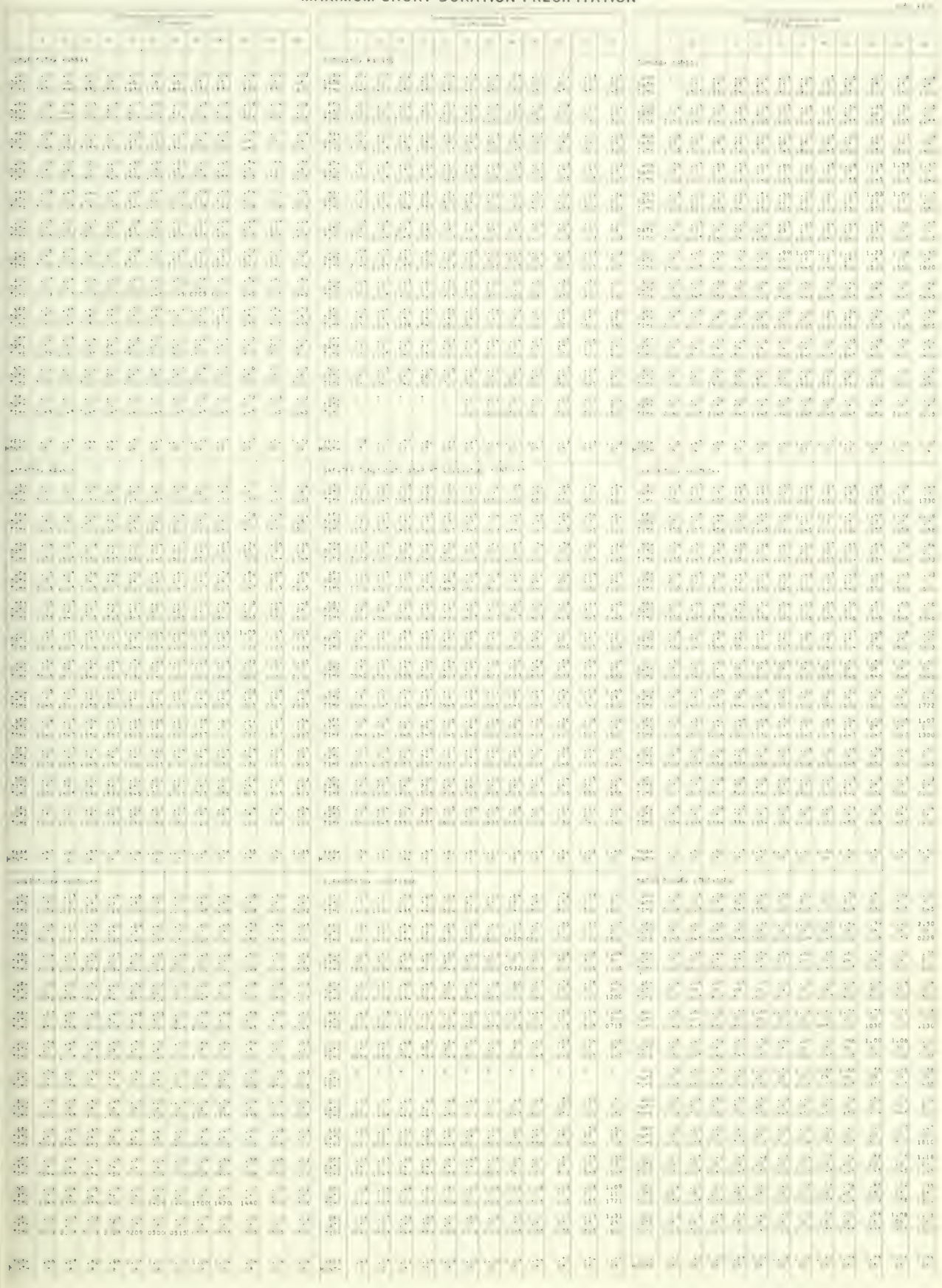
DES MOINES, IOWA

	5	10	15	30	45	60	2	3	6	12	24	48
JAN	.02	.03	.03	.04	.05	.07	.08	.09	.10	.12	.14	.14
DATE	25	25	25	25	25	25	25	25	25	25	25	25
TIME	0655	0700	0700	0700	0715	0730	0745	0805	0845	0905	0935	1005
FEB	.8	.13	.15	.20	.22	.24	.5	.28	.43	.4	.47	.5
DATE	14	14	14	14	14	14	14	14	14	21	21	21
TIME	1053	1100	1102	1107	1117	1132	1137	1155	0845	0905	0935	1005
MAR	.8	.13	.15	.20	.26	.34	.34	.38	.43	.47	.53	.56
DATE	29	29	29	29	29	29	29	29	29	29	29	
TIME	2050	2059	2100	2105	2115	2130	2130	2125	2135	2137	2210	
APR	.32	.58	.42	.87	1.30	1.02	1.02	1.02	1.02	1.02	.9	1.03
DATE	23	23	23	23	23	21	23	23	23	23	23	23
TIME	1759	1800	1800	1800	1800	1800	1800	1840	1840	1840	1945	
MAY	.13	.15	.15	.15	.22	.23	.35	.41	.45	.48	.54	.61
DATE	29	28	28	28	16	16	16	16	16	16	16	
TIME	1552	1557	1602	1607	0905	0925	0935	0955	0945			
JUN	.62	.90	.93	.26	1.53	1.74	1.74	1.92	2.21	2.22	2.22	2.24
DATE	11	10	10	12	12	12	27	27	27	27	27	27
TIME	0510	0512	0515	0525	1937	1947	1959	33	2200	2207	2255	2
JUL	.45	.64	.66	.8	.86	.85	.86	.86	.85	.86	.85	.86
DATE	21	21	22	22	22	22	22	22	22	22	22	22
TIME	1527	1537	1532	1537	1547	1547	1547	1547	1547	1547	1547	1547
AUG	.32	.48	.51	.65	.76	.83	.89	1.07	1.14	1.22	.39	1.40
DATE	11	11	11	11	11	11	11	11	11	11	11	11
TIME	1429	1439	1638	1640	1652	1659	1700	1732	1752	1813	944	1914
SEP	.08	.15	.16	.18	.19	.19	.22	.26	.31	.3	.34	.35
DATE	9	9	9	9	9	9	9	9	9	9	9	9
TIME	0708	0713	0718	0726	0733	0748	0808	0828	0848	908	0938	1008
OCT	.03	.04	.04	.5	.08	.1	.3	.17	.18	.26	.28	.30
DATE	24	24	24	24	24	24	24	24	24	24	24	24
TIME	0533	0545	0550	0533	0533	0533	0533	0533	0533	0550	0540	0
NOV	T	T	.01	.01	.02	.02	.03	.04	.05	.06	.06	
DATE			26	26	26	26	26	26	26	27	27	
TIME			2240	2240	2245	2245	2305	2315	2315	2350	2350	
DEC	T	T	.01	.01	.01	.1	.02	.02	.03	.03	.3	
DATE			3	3	3	3	3	3	28	28	28	
TIME			2003	2003	2003	2003	2003	1745	1805	1825	1930	0300
YEAR	.62	.90	.93	1.36	1.53	1.74	1.74	1.92	2.21	2.24	2.2	2.24
MONTH	07	07	07	07	07	07	07	07	07	07	07	07

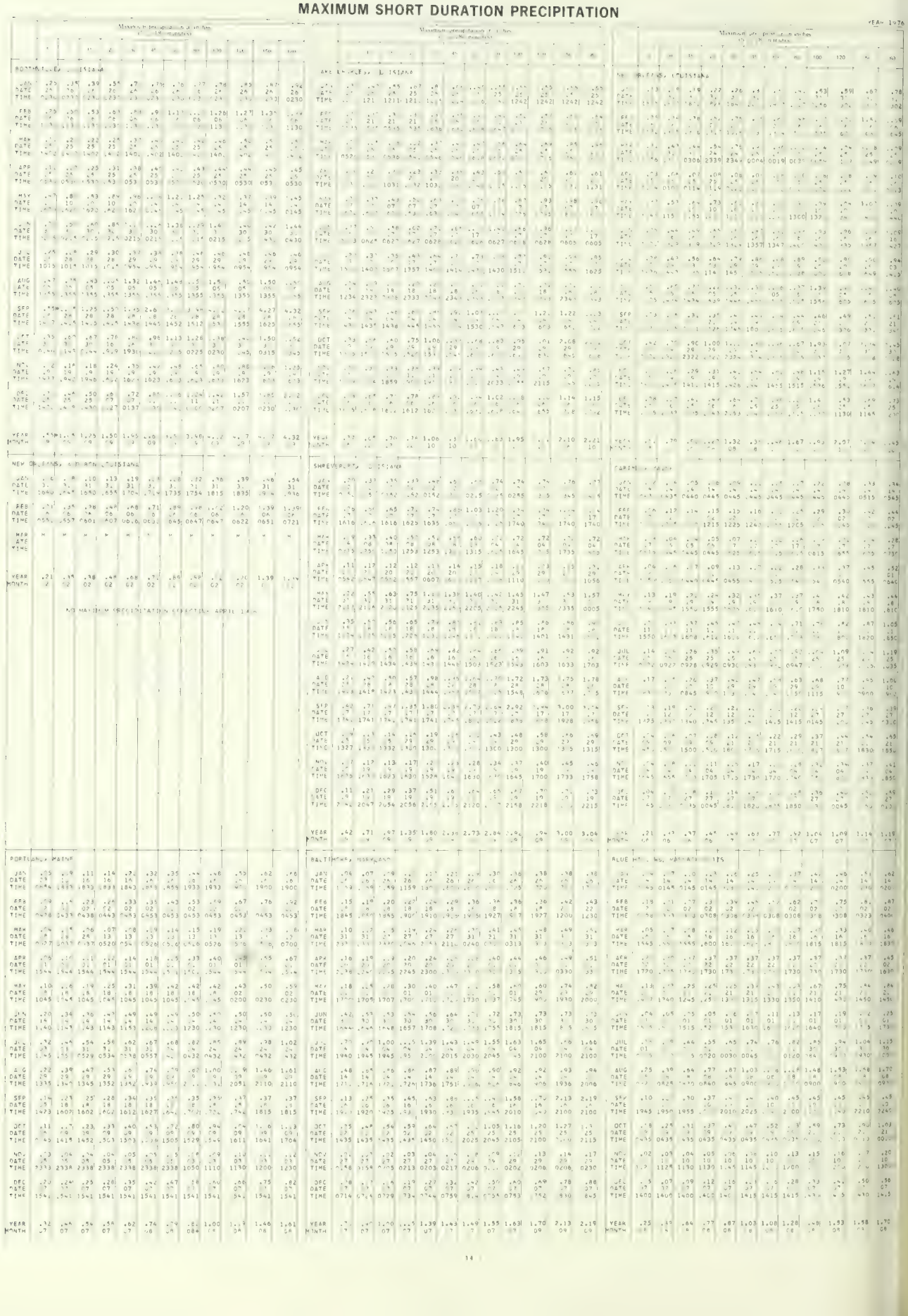
DUBUQUE, IOWA

	5	10	15	30	45	60	2	3	6	12	24	48
JAN			.7	.02	.03	.04	.5	.06	.08	.12	.14	.14
DATE			25	25	25	25	25	25	25	25	25	25
TIME			1320	1320	1330	1340	1340	1340	1340	1340	1340	1340
FEB	.13	.18	.19	.24	.27	.34	.38	.42	.44	.45	.45	.45
DATE	16	16	16	16	16	16	16	16	16	16	16	16
TIME	1435	1445	1445	1443	1455	1455	1455	1455	1455	572	1545	607
MAR	.05	.8	.11	.16	.21	.31	.37	.44	.49	.49	.49	.49
DATE	4	4	4	4	4	4	4	4	4	4	4	4
TIME	0730	0740	0750	0750	0723	0733	0750	0	0	847	944	1057
APR	.15	.24	.17	.17	.17	.24	.25	.38	.46	.47	.49	.50
DATE	18	18	18	18	18	23	23	23	23	23	23	23
TIME	1435	0430	0430	0430	0437	0445	0	1139	1153	1225	1245	1330
MAY	.7	.11	.12	.3	.18	.22	.4	.26	.26	.28	.4	.4
DATE	4	5	5	5	5	5	29	29	29	29	29	29
TIME	1332	1337	1342	1339	1833	1837	1837	1837	1837	1837	1837	1837
JUN	.18	.28	.14	.15	.15	.18	.24	.26	.28	.36	.46	.50
DATE	13	13	13	13	13	13	13	13	13	13	13	13
TIME	1356	1401	1406	2003	2009	2014	2032	2047	2108	2130	2147	2217
JUL	.19	.34	.39	.38	.37	.42	.46	.56	.6	.59	.62	.63
DATE	29	29	29	29	29	29	29	29	29	29	29	29
TIME	1335	1340	0143	0350	0	0410	0430	0445	0505	0525	550	0615
AUG	.20	.29	.32	.7	.4	.44	.95	1.10	1.17	1.17	1.19	1.19
DATE	9	9	9	9	9	9	9	9	9	9	9	9
TIME	1510	1514	1520	1625	1635	1640	1643	1633	1645	1705	1	1745
SEP	.08	.14	.15	.16	.23	.24	.28	.27	.4	.4	.53	.55
DATE	9	19	19	19	19	19	19	19	19	19	19	19
TIME	0833	0833	0833

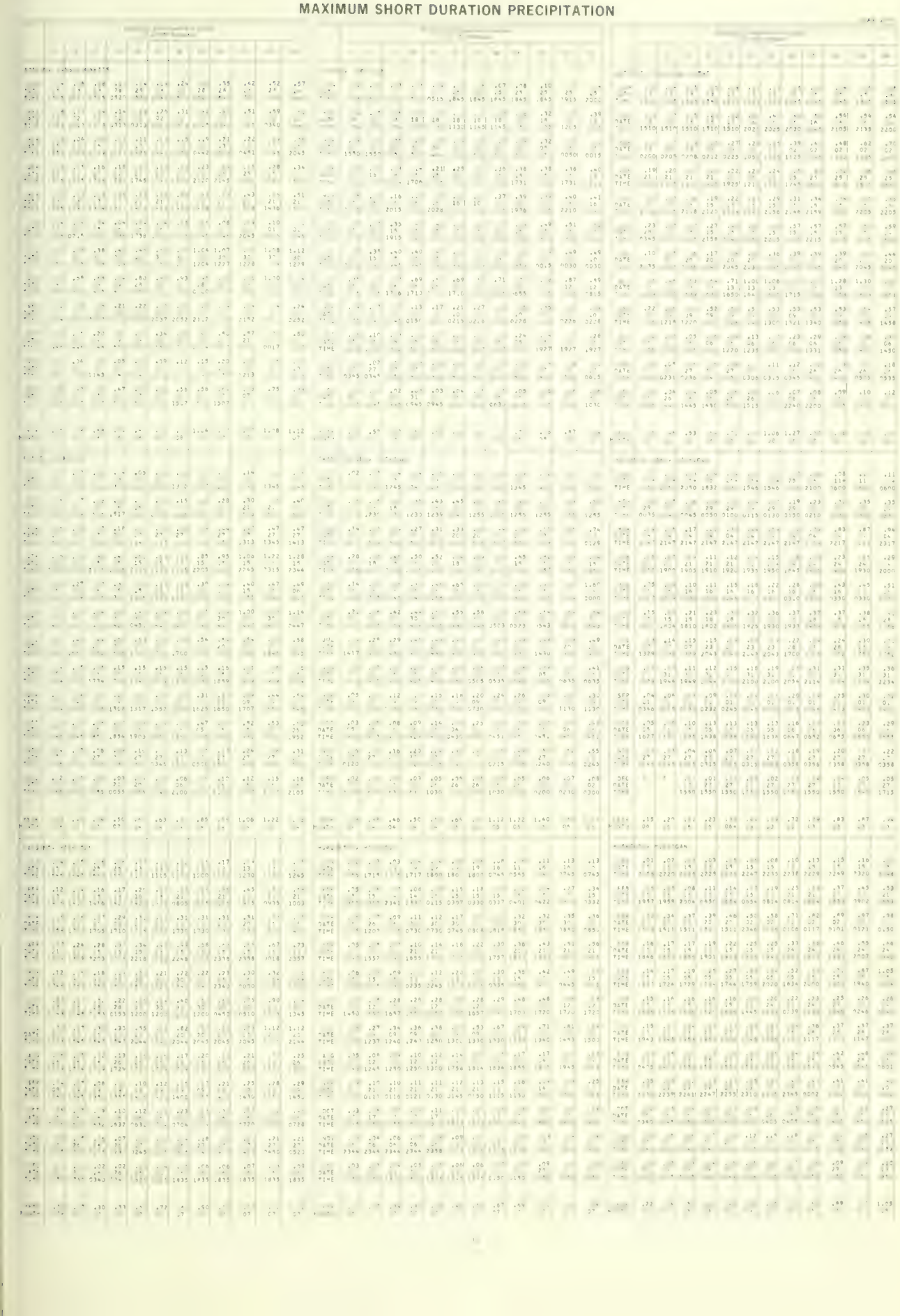
MAXIMUM SHORT DURATION PRECIPITATION



MAXIMUM SHORT DURATION PRECIPITATION



MAXIMUM SHORT DURATION PRECIPITATION



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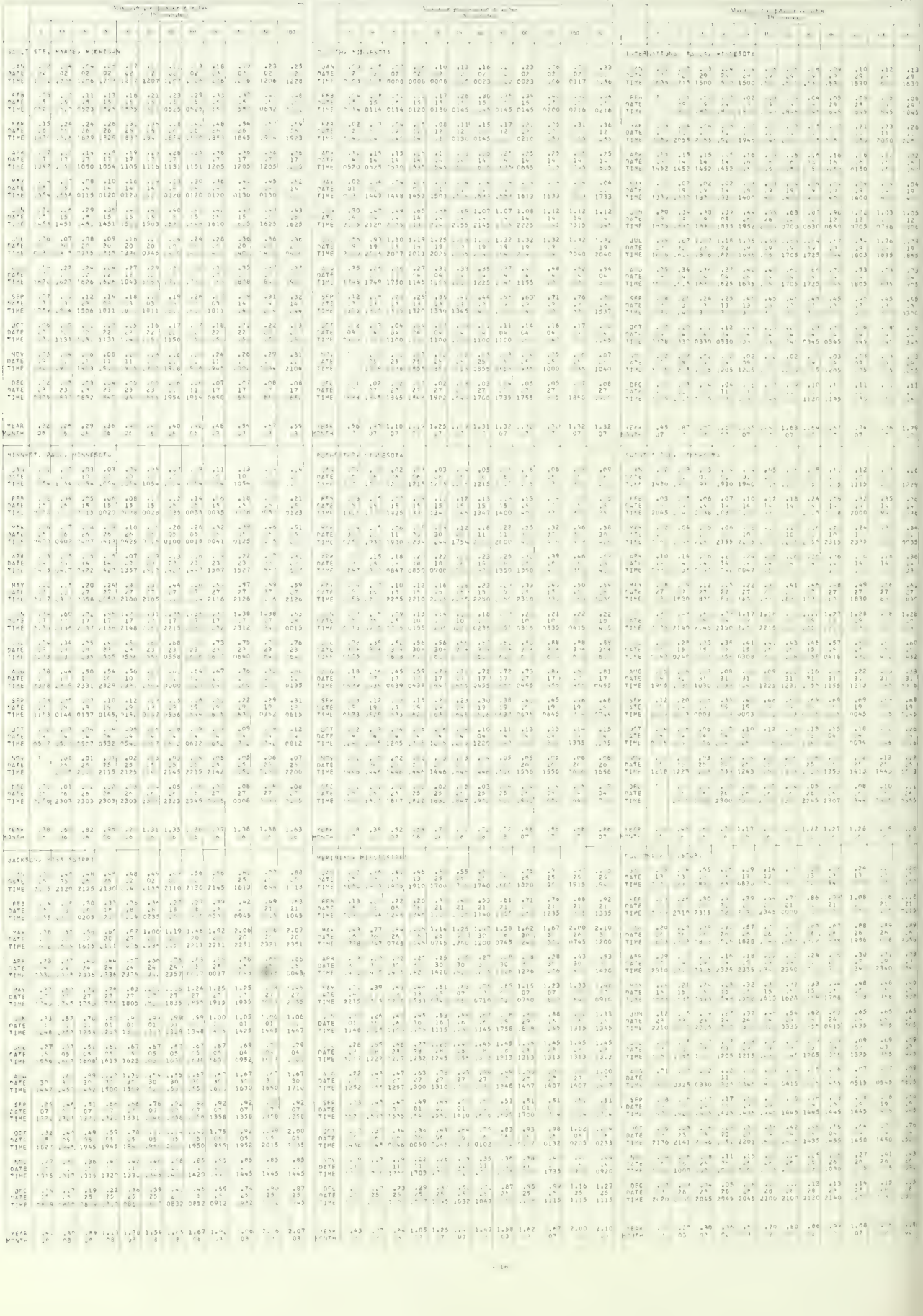

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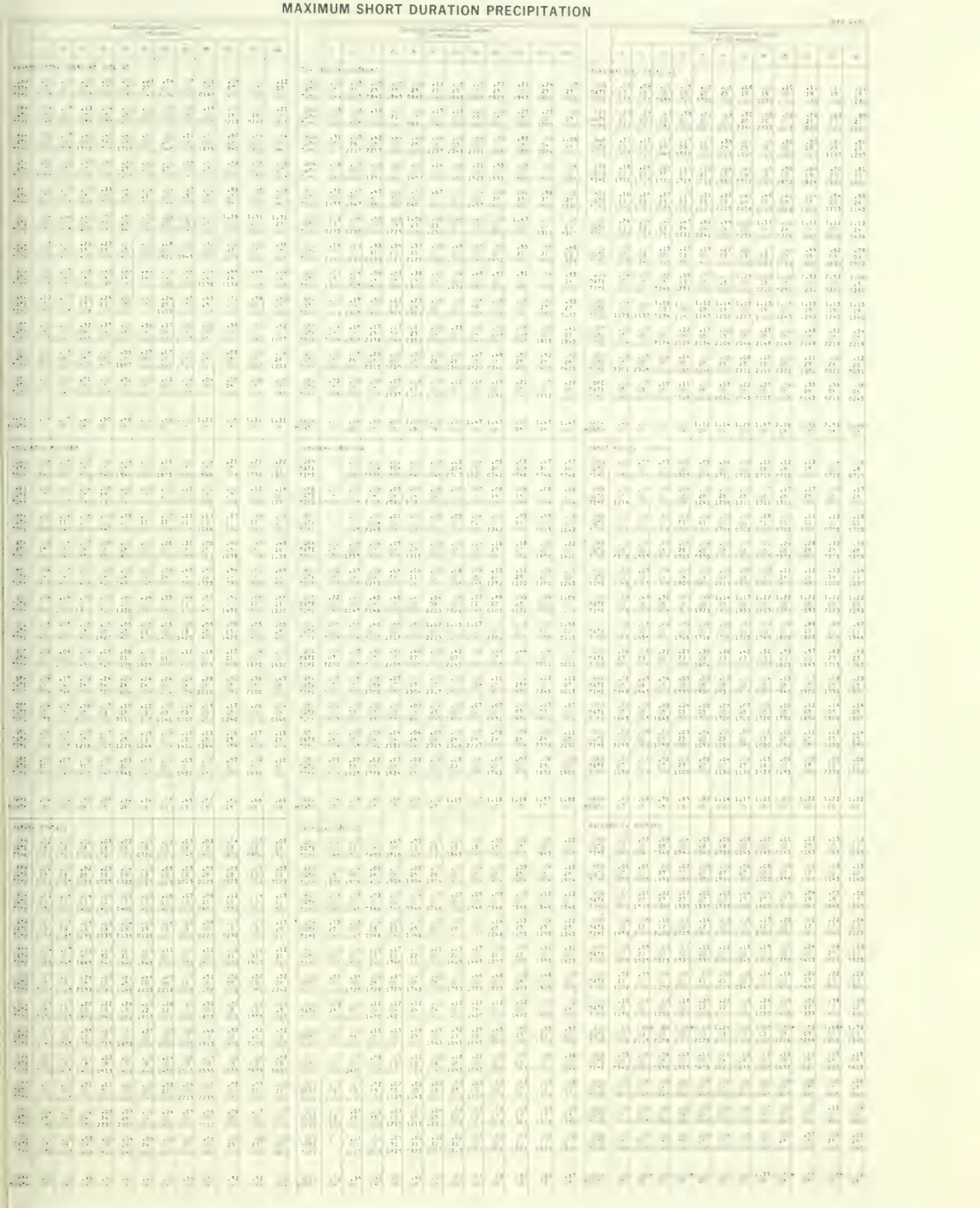

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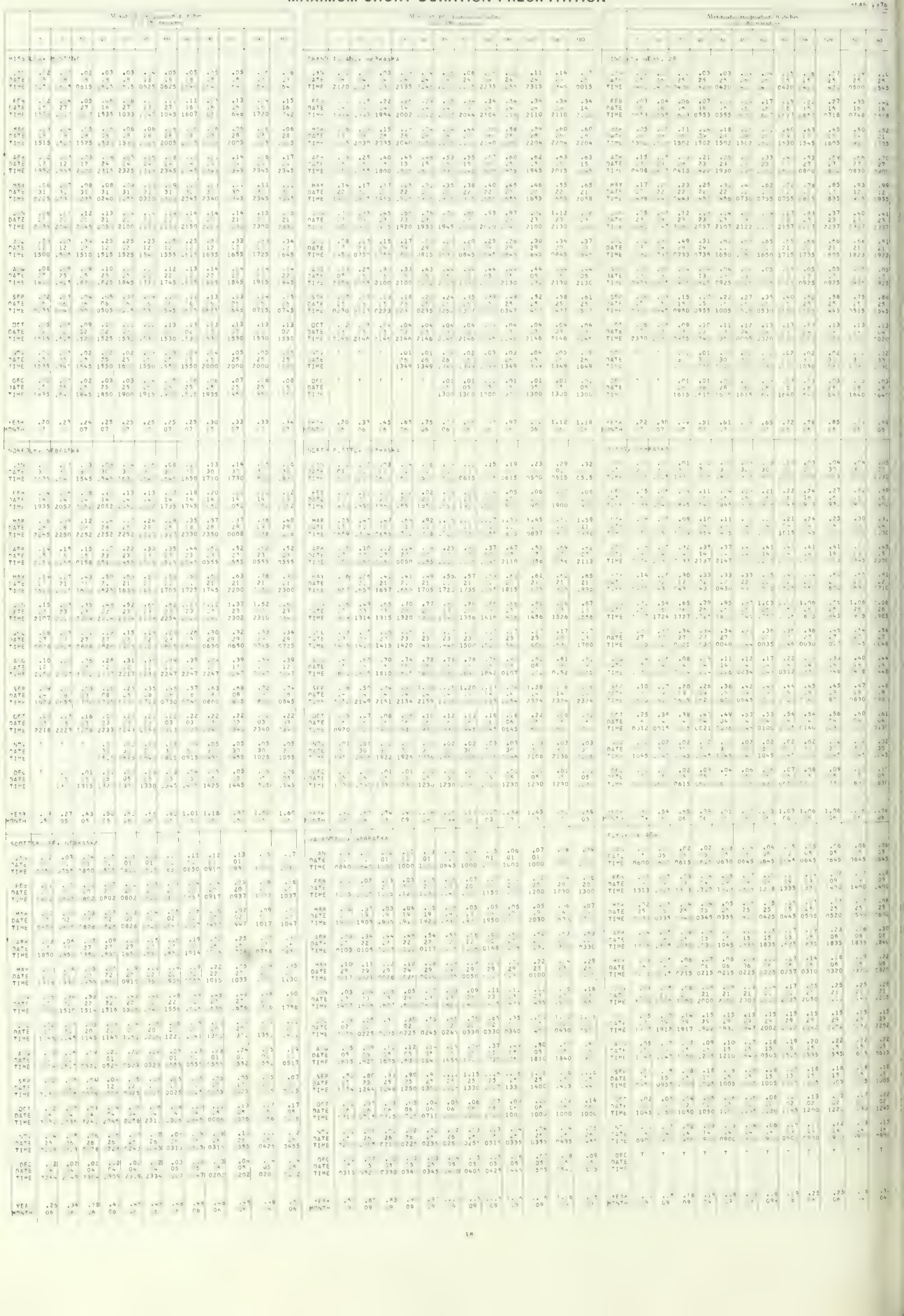

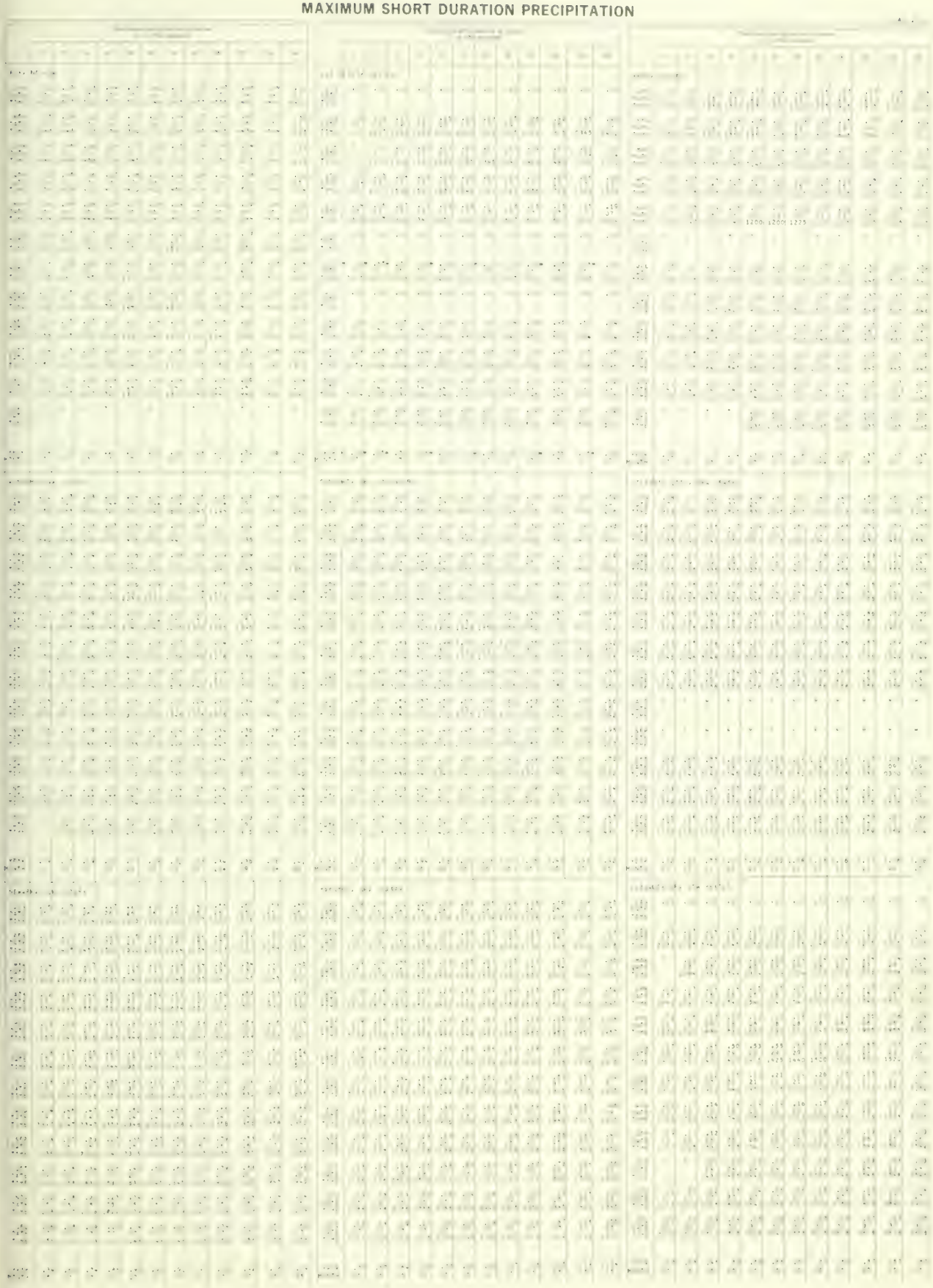

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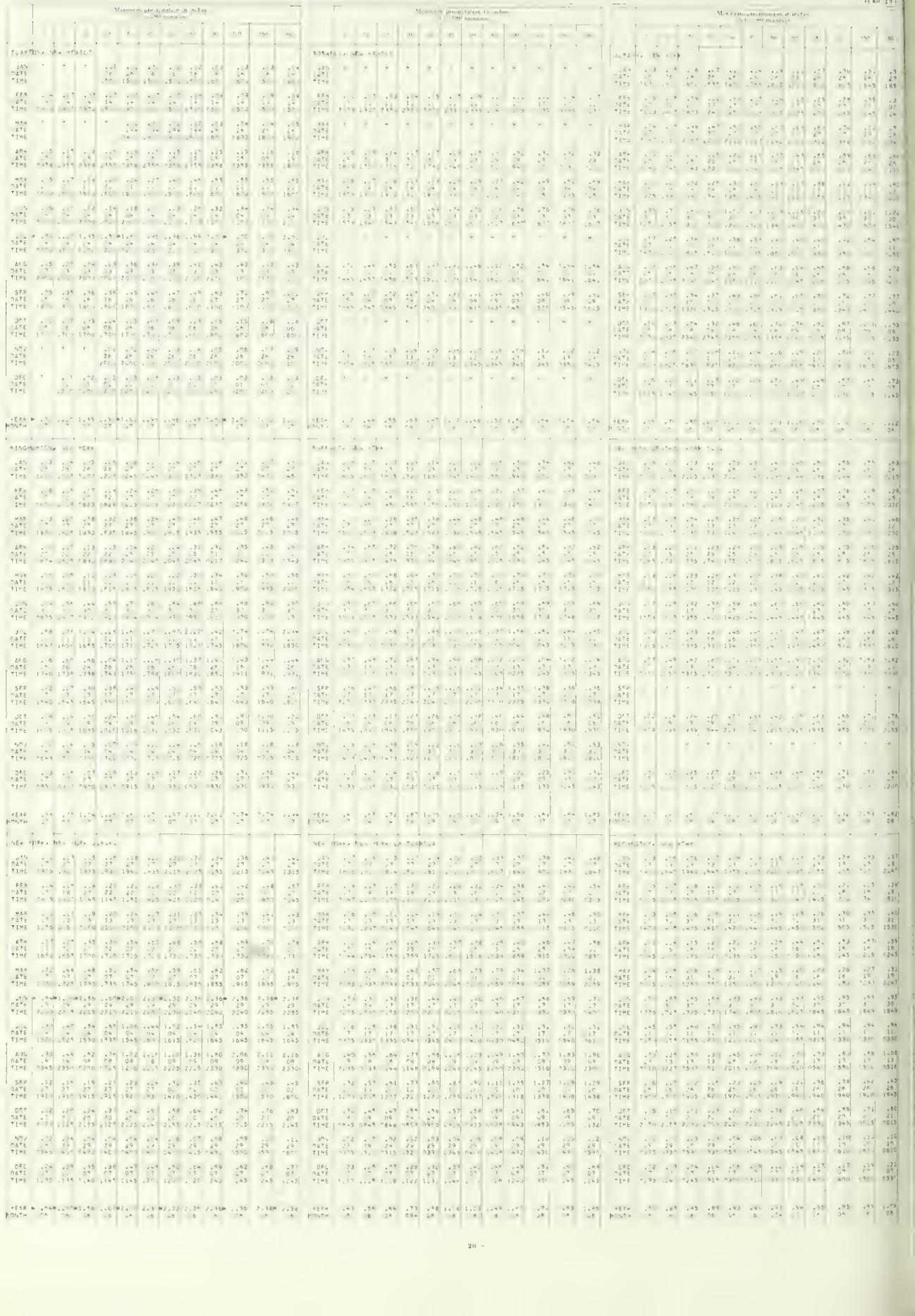

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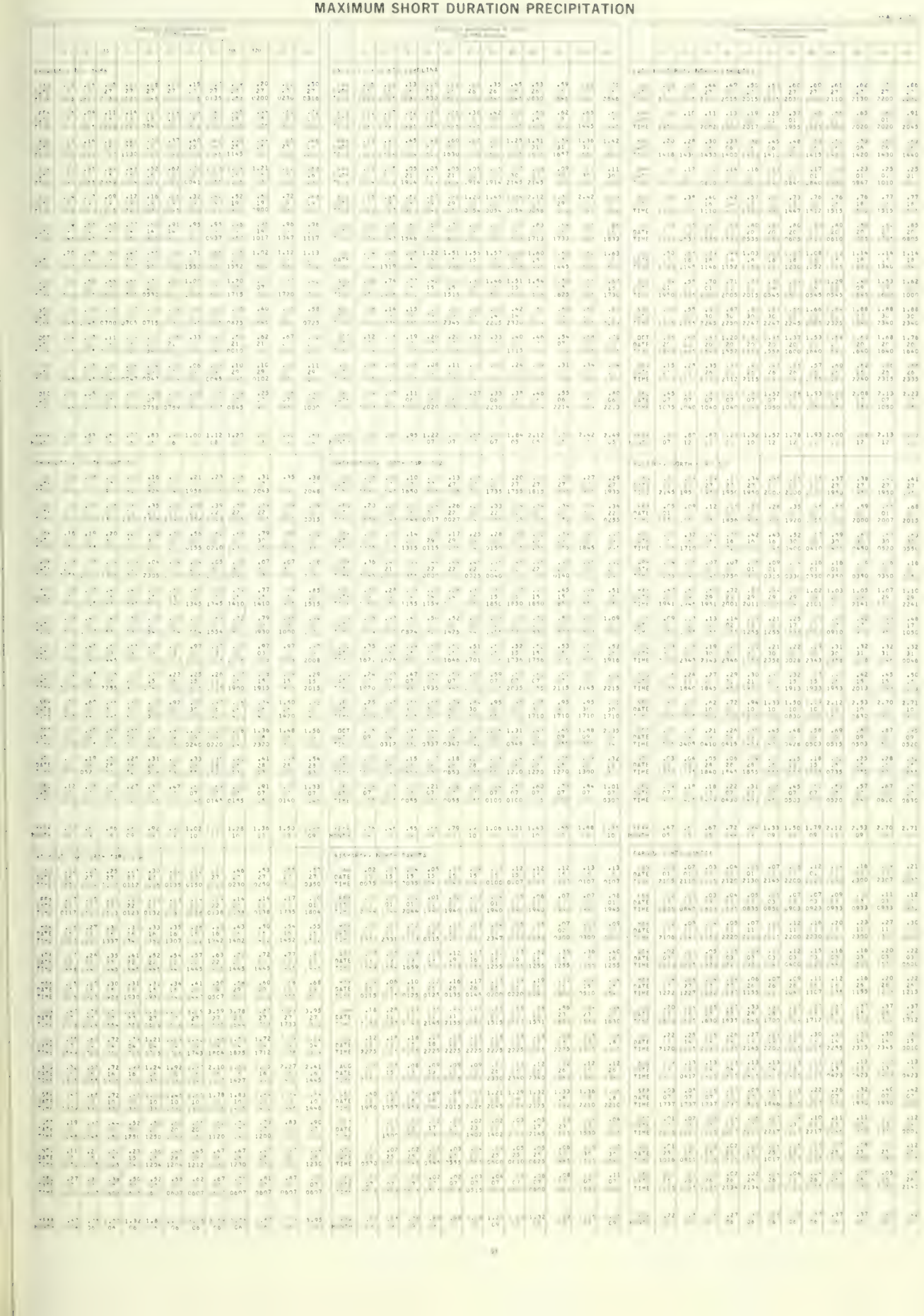

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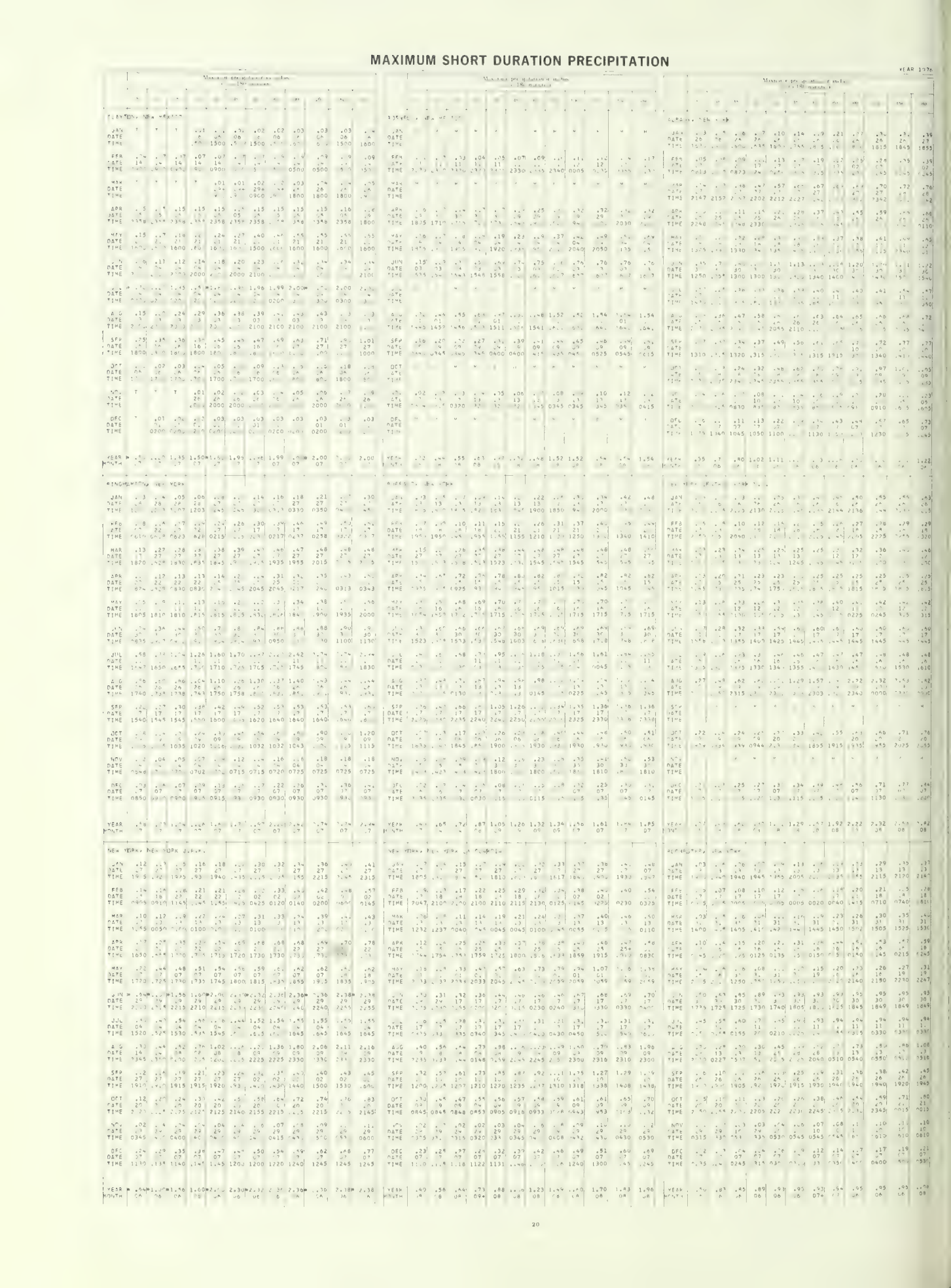
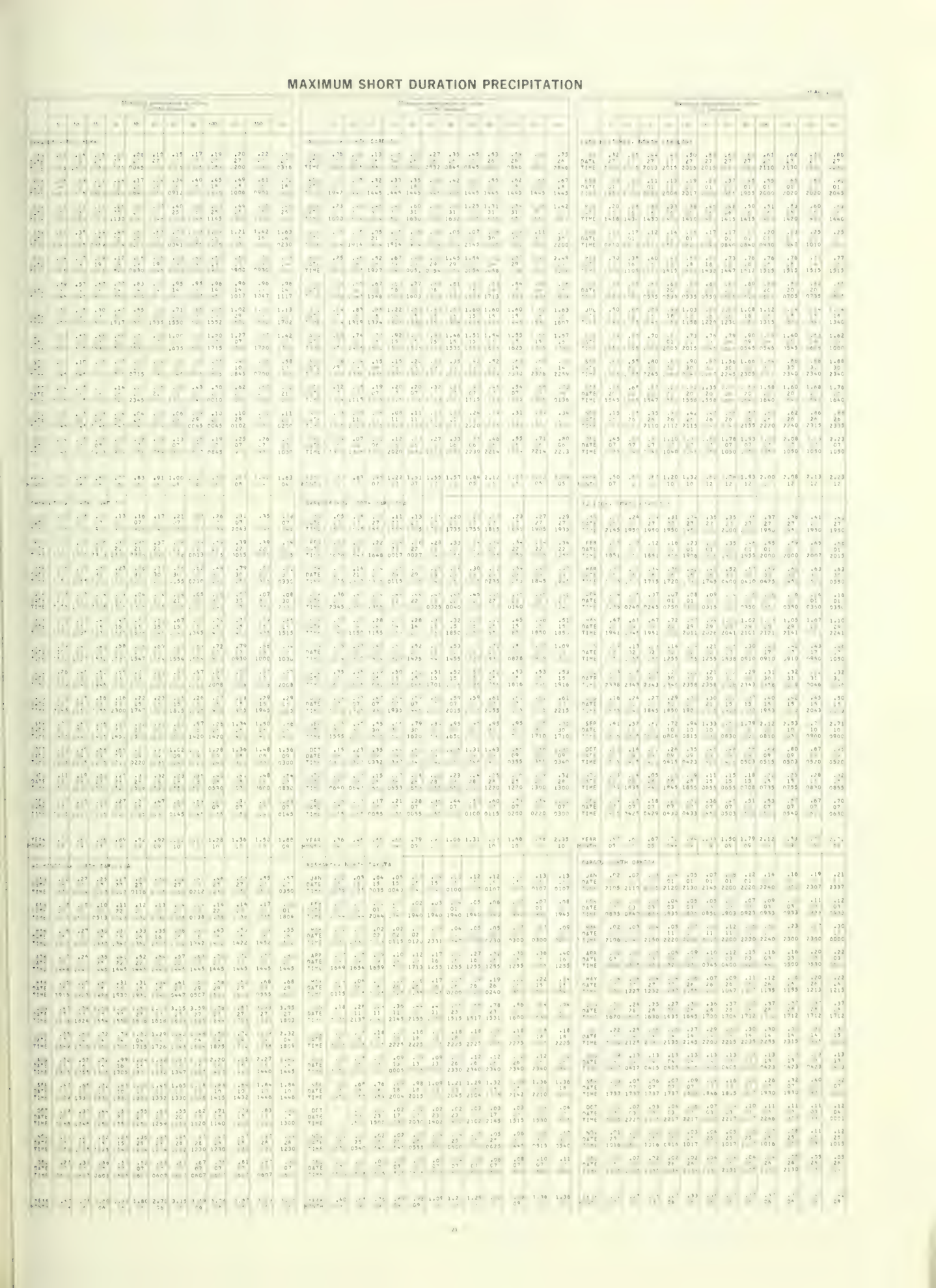
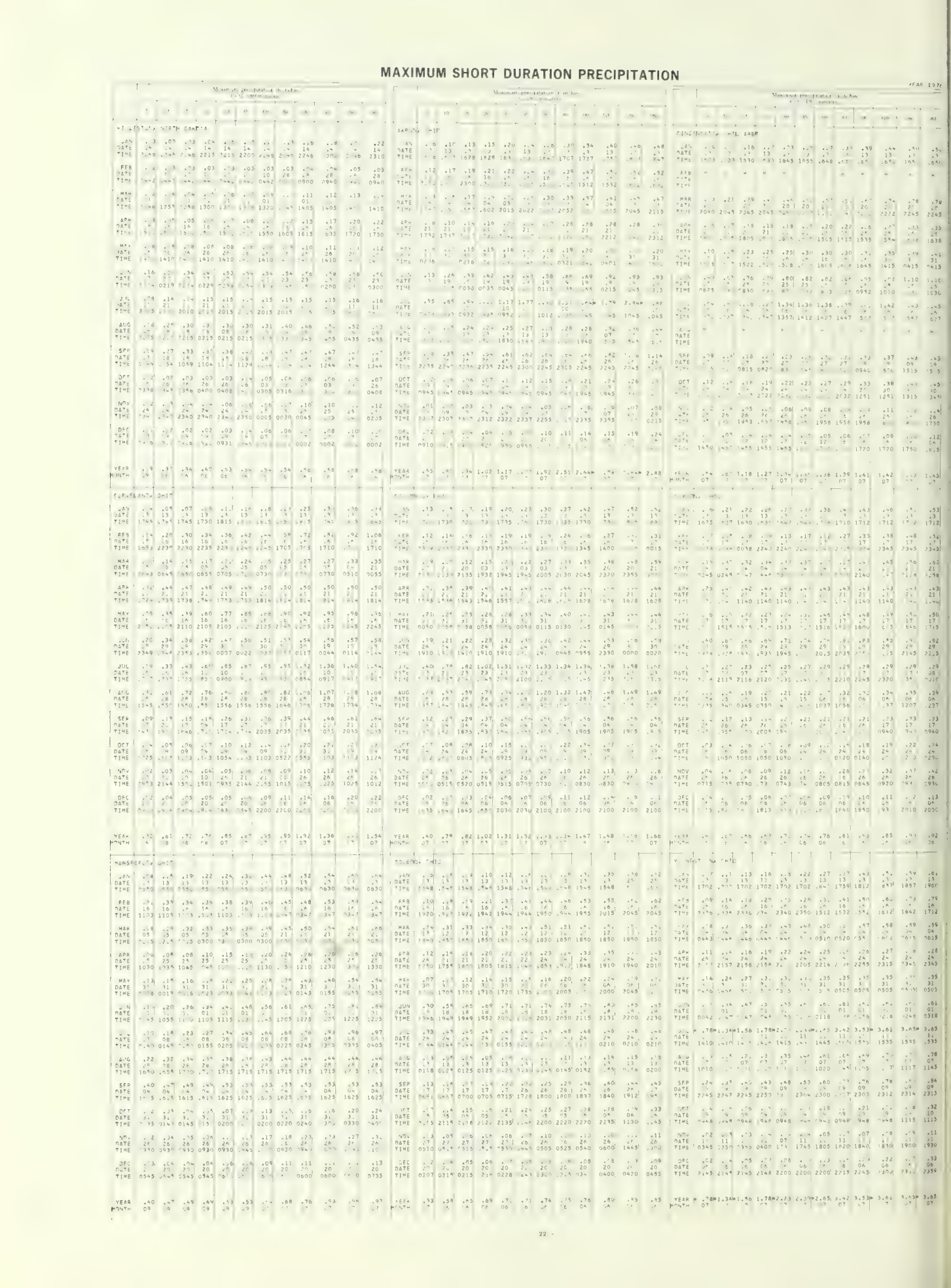


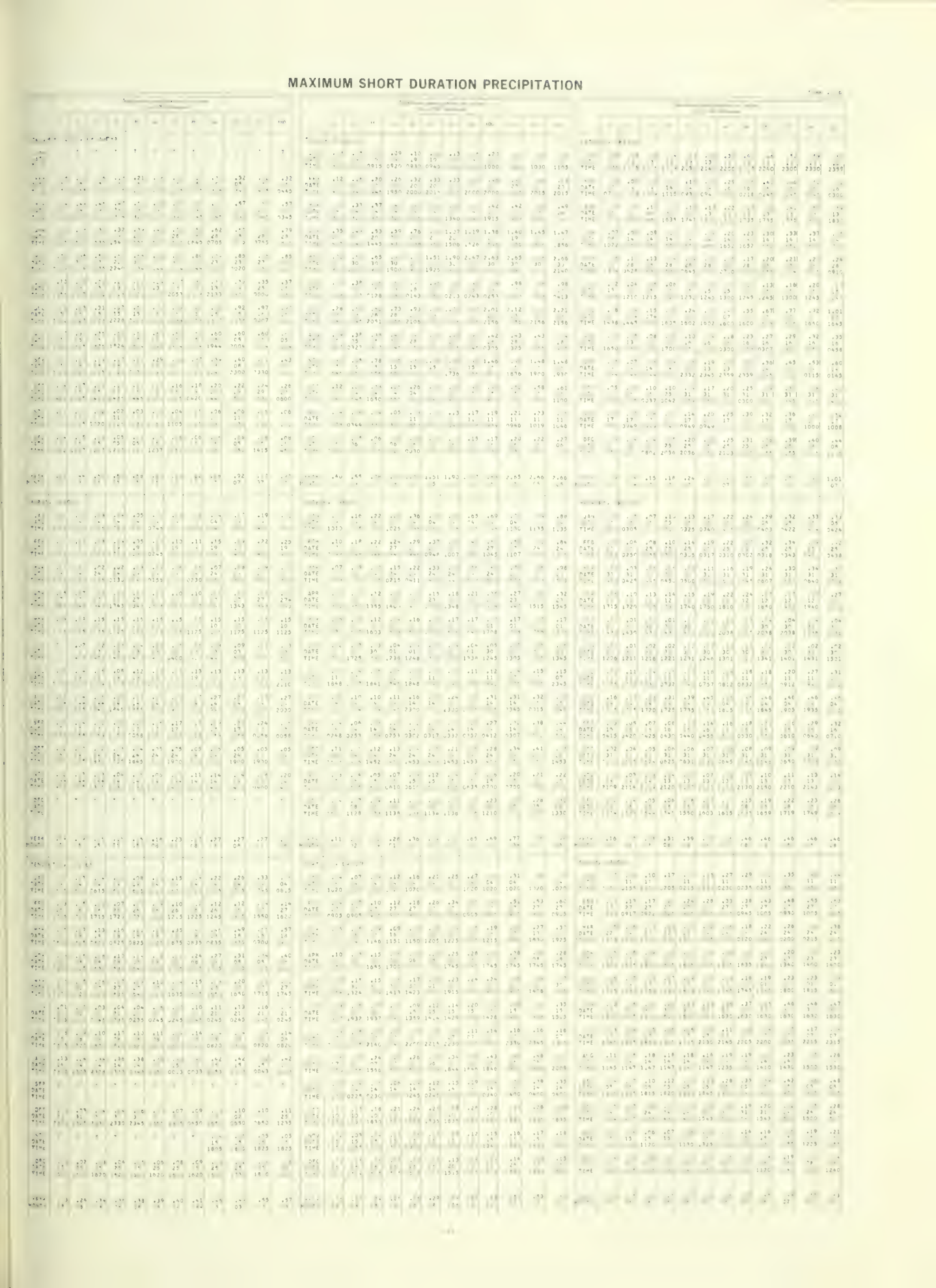
MAXIMUM SHORT DURATION PRECIPITATION



MAXIMUM SHORT DURATION PRECIPITATION

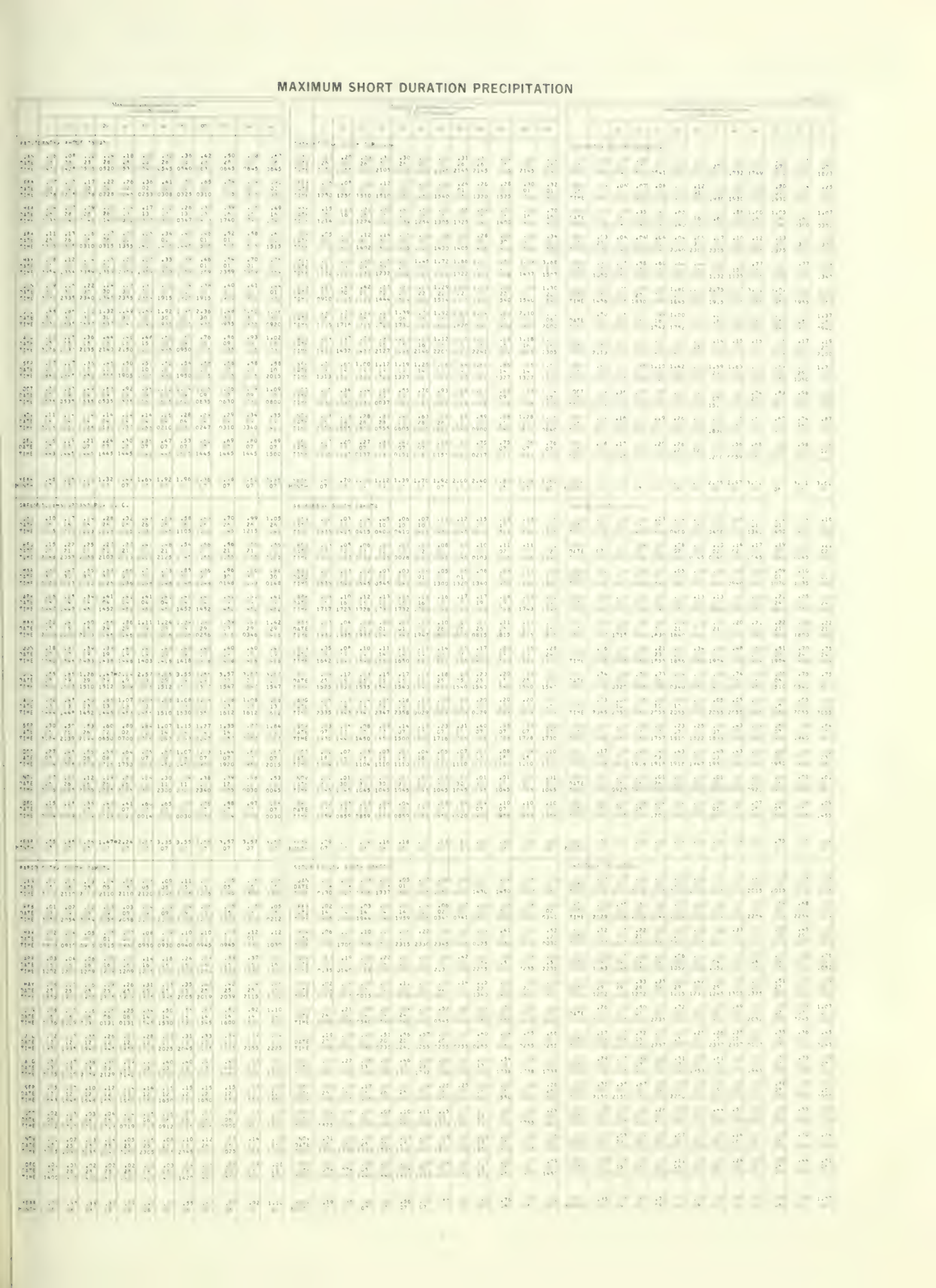


MAXIMUM SHORT DURATION PRECIPITATION



MAXIMUM SHORT DURATION PRECIPITATION

MAXIMUM SHORT DURATION PRECIPITATION



MAXIMUM SHORT DURATION PRECIPITATION

Maximum precipitation in inches (5 to 180 minutes)

SAN ANTONIO, TEXAS

JAN	.17	.19	.20	.21	.23	.25	.26	.28	.29	.30	.31	.32	.33
DATE	19	19	19	19	19	19	19	19	19	19	19	19	19
TIME	1707	1710	1711	1712	1712	1712	1712	1712	1712	1712	1712	1712	2312
FEB	.25	.27	.28	.29	.30	.31	.32	.33	.34	.35	.36	.37	.38
DATE	21	21	21	21	21	21	21	21	21	21	21	21	21
TIME	0959	0959	0959	0959	0959	0959	0959	0959	0959	0959	0959	0959	0959
MAR	.14	.27	.36	.42	.46	.49	.51	.53	.55	.56	.57	.58	.59
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	1113	1113	1113	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135
APR	.33	.47	.56	.63	.67	.72	.72	.77	.78	.81	.85	1.03	1.03
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	2207	2207	2207	2207	2207	2207	2207	2207	2207	2207	0352	0554	0554
MAY	.38	.64	.80	.94	1.03	1.11	1.23	1.27	1.31	1.34	1.36	2.18	2.18
DATE	07	7	7	7	7	7	7	7	7	7	7	7	7
TIME	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434
JUN	.37	.54	.66	.77	.88	1.04	1.09	1.15	1.15	1.15	1.15	1.17	1.17
DATE	14	14	14	14	14	14	14	14	14	14	14	14	14
TIME	1619	1619	1619	1619	1619	1619	1619	1619	1619	1619	1619	1619	1619
JUL	.38	.64	.80	.93	1.04	1.11	1.23	1.27	1.31	1.34	1.36	2.18	2.18
DATE	07	7	7	7	7	7	7	7	7	7	7	7	7
TIME	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434
AUG	.34	.54	.67	.77	.84	.91	.94	.95	.95	.95	.95	.95	.95
DATE	19	19	19	19	19	19	19	19	19	19	19	19	19
TIME	1256	1301	1311	1316	1316	1316	1316	1316	1316	1316	1316	1316	1316
SEP	.22	.37	.45	.59	.76	.87	.89	.91	.94	1.00	1.10	1.12	1.12
DATE	28	28	28	28	28	28	28	28	28	28	28	28	28
TIME	0208	0208	0208	0208	0208	0208	0208	0208	0208	0208	0208	0208	0208
OCT	.34	.37	.7	.47	.61	.70	.84	.84	.84	.84	1.86	1.86	1.86
DATE	04	04	04	04	04	04	04	04	04	04	04	04	04
TIME	1502	1502	1502	1502	1502	1502	1502	1502	1502	1502	1502	1502	1502
NOV	.19	.26	.29	.32	.34	.41	.7	.39	.39	.41	.44	.44	.44
DATE	12	12	12	12	12	12	12	12	12	12	12	12	12
TIME	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	2000
DEC	.25	.29	.34	.36	.39	.44	.46	.46	.46	.46	.46	.46	.46
DATE	13	13	13	13	13	13	13	13	13	13	13	13	13
TIME	0605	0605	0605	0605	0605	0605	0605	0605	0605	0605	0605	0605	0605
YEAR	.19	.27	.36	.42	.46	.49	.51	.53	.55	.56	.57	.58	.59
MONTH	04	04	04	04	04	04	04	04	04	04	04	04	04

SAN ANTONIO, TEXAS

JAN	.04	.7	.8	.9	.10	.11	.14	.16	.21	.23	.25	.26	.27
DATE	24	24	24	24	24	24	24	24	24	24	24	24	24
TIME	1255	1300	1305	1316	1316	1316	1316	1316	1316	1316	1316	1429	1429
FEB	.13	.18	.19	.21	.21	.21	.21	.21	.21	.21	.21	.21	.21
DATE	21	21	21	21	21	21	21	21	21	21	21	21	21
TIME	0640	0640	0640	0640	0640	0640	0640	0640	0640	0640	0640	0640	0640
MAR	.15	.23	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27
DATE	7	7	7	7	7	7	7	7	7	7	7	7	7
TIME	1255	1300	1305	1316	1316	1316	1316	1316	1316	1316	1316	1429	1429
APR	.3	.3	.27	.36	.4	.4	.4	.4	.4	.4	.4	1.15	.4
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	0448	0448	0448	0448	0448	0448	0448	0448	0448	0448	0448	0448	0448
MAY	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
DATE	7	7	7	7	7	7	7	7	7	7	7	7	7
TIME	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434
JUN	.37	.44	.49	.51	.53	.57	.65	.70	.75	.75	.75	.75	.75
DATE	14	14	14	14	14	14	14	14	14	14	14	14	14
TIME	1510	1615	1625	1625	1625	1625	1625	1625	1625	1625	1625	1625	1625
JUL	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
DATE	7	7	7	7	7	7	7	7	7	7	7	7	7
TIME	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434
AUG	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	1141	1152	1207	1207	1207	1207	1207	1207	1207	1207	1207	1207	1207
SEP	.72	.72	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.59	.74
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	0327	0327	0327	0327	0327	0327	0327	0327	0327	0327	0327	0327	0327
OCT	.21	.33	.33	.33	.33	.33	.33	.33	.33	.33	.33	.33	.33
DATE	11	11	11	11	11	11	11	11	11	11	11	11	11
TIME	0343	0343	0343	0343	0343	0343	0343	0343	0343	0343	0343	0343	0343
NOV	.24	.24	.24	.24	.24	.24	.24	.24	.24	.24	.24	.24	.24
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	0244	0244	0244	0244	0244	0244	0244	0244	0244	0244	0244	0244	0244
DEC	.24	.24	.24	.24	.24	.24	.24	.24	.24	.24	.24	.24	.24
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	0343	0343	0343	0343	0343	0343	0343	0343	0343	0343	0343	0343	0343
YEAR	.72	.72	1.15	1.29	1.42	1.59	.74	.74	.74	.74	.74	.74	.74
MONTH	01	01	01	01	01	01	01	01	01	01	01	01	01

WICHITA FALLS, TEXAS

JAN	.23	.38	.49	.63	.73	.8	1.12	1.32	.87	1.84	1.84	1.84	1.84
DATE	24	24	24	24	24	24	24	24	24	24	24	24	24
TIME	2130	2135	2135	2135	2135	2135	2135	2135	2135	2135	2135	2135	2315
FEB	.12	.13	.14	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15
DATE	21	21	21	21	21	21	21	21	21	21	21	21	21
TIME	0135	0140	0140	0140	0220	0220	0240	0300	0320	0320	0320	0320	0320
MAR	.17	.22	.28	.29	.29	.29	.29	.29	.29	.29	.29	.29	.29
DATE	23	23	23	23	23	23	23	23	23	23	23	23	23
TIME	0845	0845	0845	0845	0845	0845	0845	0845	0845	0845	0845	0845	0845
APR	.24	.27	.32	.34	.35	.38	.45	.48	.76	.79	.79	.79	.79
DATE	25	25	25	25	25	25	25	25	25	25	25	25	25
TIME	2155	2155	2215	2215	2215	2215	2227	2227	2227	2227	2227	2227	2330
MAY	.29	.44	.57	.62	.68	.68	.68	.68	.68	.68	.68	.68	.68
DATE	12	12	12	12	12	12	12	12	12	12	12	12	12
TIME	1350	1355	1405	1415	1415	1415	1415	1415	1415	1415	1415	1415	1415
JUN	.32	.37	.48	.52	.65	.72	.75	.75	.79	.79	.79	.79	.79
DATE	18	18	18	18	18	18	18	18	18	18	18	18	18
TIME	0615	0615	0615	0615	0615	0615	0615	0615	0615	0615	0615	0615	0710
JUL	.22	.37	.51	.60	.72	.82	.89	.89	1.04	1.04	1.04	1.04	1.04
DATE	19	19	19	19	19	19	19	19	19	19	19	19	19
TIME	1645	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
AUG	.25	.37	.48	.52	.65	.72	.75	.75	.79	.79	.79	.79	.79
DATE	18	18	18	18	18	18	18	18	18	18	18	18	18
TIME	0615	0615	0615	0615	0615	0615	0615	0615	0615	0615	0615	0615	0710
SEP	.27	.40	.52	.57	.72	.87	1.02	1.20	1.40	1.62	1.77	.87	.87
DATE	30	30	30	30	30	30	30	30	30	30	30	30	30
TIME	1210	1210	1315	1315	1315	1315	1315	1315	1350	1355	1425	1445	1445
OCT	.33	.45	.62	.65	.72	.76	.76	.83	.85	.85	.85	.85	.85
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	1104	1110	1110	1125	1140	1150	1215	1235	1340	1340	1340	1350	1350
NOV	.26	.26	.26	.26	.26	.26	.26	.26	.26	.26	.26	.26	.26
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	0835	0835	0835	1000	1015	1040	1129	1129	1129	1129	1129	1129	1129
DEC	.28	.28	.28	.28	.28	.28	.28	.28	.28	.28	.28	.28	.28
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	0110	0110	0110	0110	0110	0110	0110	0110	0110	0110	0110	0110	0110
YEAR	.29	.44	.57	.62	.72	.87	1.02	1.20	1.40	1.62	1.77	.87	.87
MONTH	09	09	09	09	09	09	09	09	09	09	09	09	09

WICHITA FALLS, TEXAS

JAN	.04	.05	.7	.06	.7	.8	.10	.11	.10	.12	.12	.12	.12
DATE	24	24	24	24	24	24	24	24	24	24	24	24	24
TIME	0249	0300	0305	0305	0314	0314	0314	0314	0314	0314	0314	0314	0643
FEB	.03	.04	.04	.05	.7	.9	.11	.14	.17	.18	.17	.17	.17
DATE	21	21	21	21	21	21	21	21	21	21	21	21	21
TIME	1546	1546	1546	1546	1546	1546	1546	1546	1546	1546	1546	1546	1546
MAR	.02	.7	.8	.9	.10	.11	.13	.9	.7	.7	.7	.7	.7
DATE	7	7	7	7	7	7	7	7	7	7	7	7	7
TIME	0851	0851	0851	0851	0851	0851	0858	0858	0858	0858	0858	0858	0858
APR	.04	.05	.7	.9	.11	.13	.15	.19	.2	.23	.23	.23	.23
DATE	25	25	25	25	25	25	25	25	25	25	25	25	25
TIME	2155	2155	2215	2215	2227	2227	2227	2227	2227	2227	2227	2330	2330
MAY	.04	.06	.08	.10	.14	.16	.17	.17	.17	.17	.17	.17	.17
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	1422	1437	1435	1444	1445	1449	1501	1501	1535	1535	1535	1535	1535
JUN	.7	.9	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11
DATE	11	11	11	11	11	11	11	11	11	11	11	11	11
TIME	1645	1650	1650	1650	1705	1705	1705	1705	1705	1705	1705	1705	1705
JUL	.06	.08	.10	.12	.14	.16	.17	.17	.17	.17	.17	.17	.17
DATE	19	19	19	19	19	19	19	19	19	19	19	19	19
TIME	1645	1650	1650	1650	1705	1705	1705	1705	1705	1705	1705	1705	1705
AUG	.06	.08	.10	.12	.14	.16	.17	.17	.17	.17	.17	.17	.17
DATE	18	18	18	18	18	18	18	18	18	18	18	18	18
TIME	1645	1650	1650	1650	1705	1705	1705	1705	1705	1705	1705	1705	1705
SEP	.06	.7	.9	.11	.13	.15	.16	.17	.17	.17	.17	.17	.17
DATE	30	30	30	30	30	30	30	30	30	30	30	30	30
TIME	1743	1745	1745	1745	1755	1805	1845	1905	1905	1905	1905	1905	1905
OCT	.7	.9	.11	.13	.16	.18	.20	.22	.23	.23	.23	.23	.23
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	0450	0455	0505	0505	0505	0505	0505	0505	0505	0505	0505	0505	0505
NOV	.03	.04	.05	.7	.08	.09	.11	.17	.23	.26	.7	.7	.7
DATE	14	14	14	14	14	14	14	14	14	14	14	14	14
TIME	1755	1805	1805	1905	1935	1935	1935	1935	1935	1947	1947	1947	1947
DEC	.7	.8	.10	.11	.13	.15	.17	.19	.21	.23	.25	.26	.27
DATE	30	30	30	30	30	30	30	30	30	30	30	30	30
TIME	2004	2005	2010	2015	2030	2045	2045	2045	2045	2045	2045	2045	2045
YEAR	.06	.08	.10	.12	.14	.16	.17	.19	.23	.26	.7	.7	.7
MONTH	07	07	07	07	07	07	07	07	07	07	07	07	07

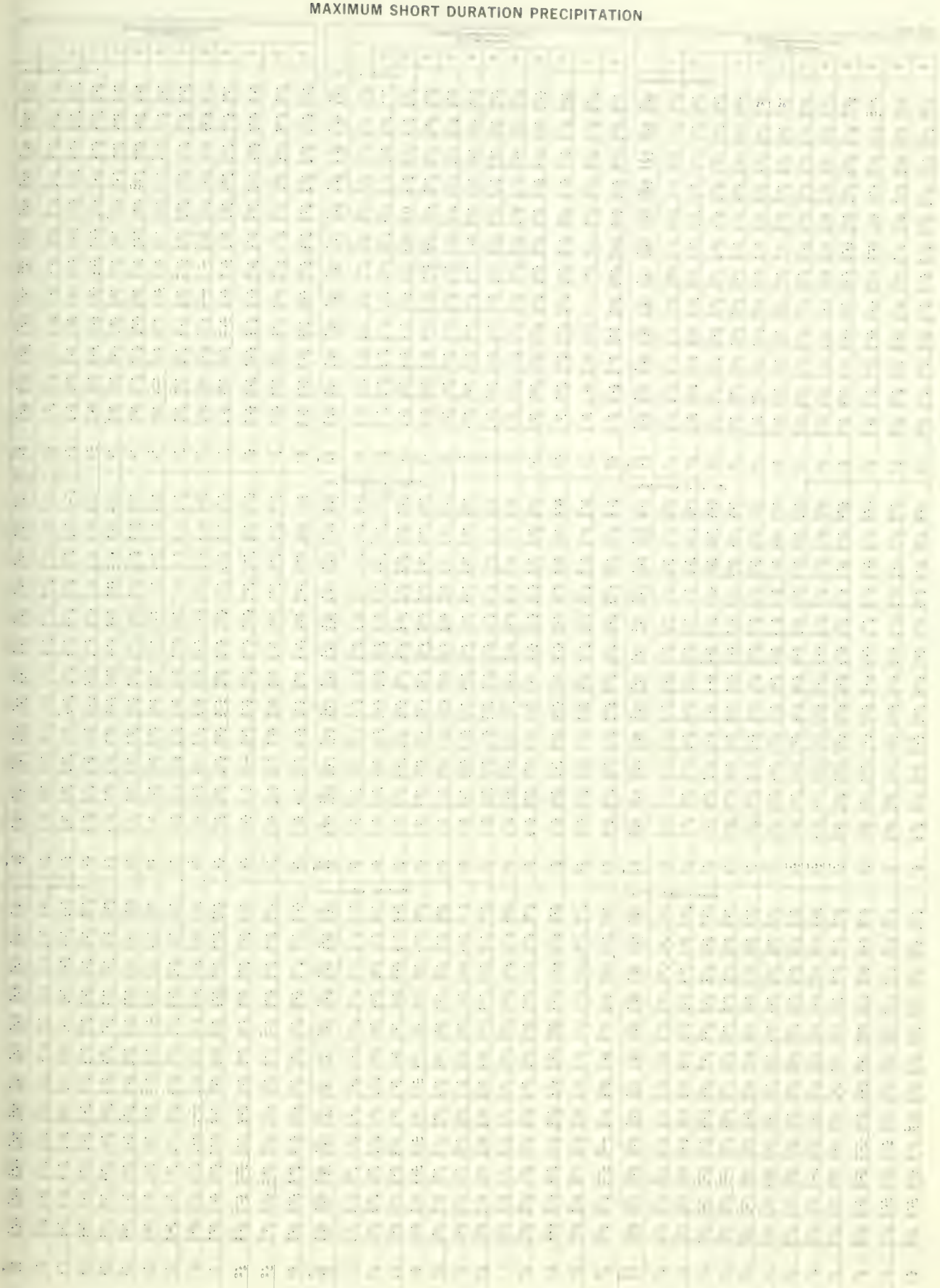
SALT LAKE CITY, UTAH

JAN	.7	.08	.11	.12	.16	.17	.17	.17	.18	.19	.19	.19	.19
DATE	05	05	05	05	05	05	05	05	05	09	09	09	09
TIME	1659	1659	1702	1702	1717	1727	1747	1813	1810	1913	2334	2334	2334
FEB	.09	.10	.15	.16	.18	.18	.20	.22	.22	.22	.22	.22	.22
DATE	16	16	16	16	16	16	16	16	16	16	16	16	16
TIME	2159	2207	2207	2210	2223	2234	2244	2244	2245	2300	2230	2240	2240
MAR	.07	.09	.11	.13	.14	.16	.18	.20	.28	.29	.29	.29	.29
DATE	28	28	28	28	28	28	28	28	28	28	28	28	28
TIME	2027	2344	2351	2351	2359	2359	2359	0110	0215	0215	0215	0215	0215
APR	.08	.13	.14	.16	.26	.16	.44	.54	.65	.72	.78	.82	.82
DATE	25	25	25	25	25	25	25	25	25	25	25	25	25
TIME	0752	0757	0801	1404	1322	1323	1345	1404	1406	1445	1506	1506	1506
MAY	.13	.17	.17	.18	.19	.20	.28	.25	.27	.27	.27	.27	.27
DATE	7	07	07	15	22	22	22	22	22	22	22	22	22
TIME	1306	1304	1313	0045	0620	0632	0644	0702	0702	0723	0805	0805	0805
JUN	.14	.14	.17	.18	.9	.11	.13	.13	.15	.28	.14	.14	.14
DATE	11	11	11	11	11	11	11	11	11	11	11	11	11
TIME	0933	0933	0933	0948	1004	1004	1009	1009	1301	1301	1332	1332	1332
JUL	.38	.50	.51	.51	.54	.59	.67	.69	.69	.69	.69	.69	.69
DATE	31	31	31	31	31	31	31	31	31	31	31	31	31
TIME	1558	1606	1606	1606	1606	1636	1651	1712	1712	1722	1722	1722	1722
AUG	.23	.24	.24	.24	.24	.24	.24	.42	.43	.44	.45	.45	.45
DATE	23	23	23	23	23	23	23	23	23	23	23	23	23
TIME	0158	0158	0158	0158	0248	0248	0248	0248	0248	0248	0248	0248	0430
SEP	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7
DATE	12	12	12	12	12	12	12	12	12	12	12	12	12
TIME	0249	0259	0304	0304	0304	0304	0304	0304	0304	0304	0304	0304	0304
OCT	.17	.19	.21	.24	.26	.27	.28	.29	.29	.29	.29	.29	.29
DATE	02	02	02	02	02	02	02	02	02	02	02	02	02
TIME	0906	0906	0906	0917	0917	0917	0917	0917	0917	0917	0917	0917	0917
NOV	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.02	.02
DATE	14	14	14	14	14	14	14	14	14	14	14	14	14
TIME	1529	1529	1529	1529	1529	1529	1529	1529	1529	1529	1529	1529	1529
DEC	.01	.01	.02	.02	.3	.4	.6	.7	.7	.7	.8	.8	.8
DATE	09	09	09	09	09	09	09	09	09	09	09	09	09
TIME	0056	0056	0056	0056	0056	0056	0056	0056	0056	0130	0130	0130	0130
YEAR	.39	.50	.51	.51	.51	.54	.59	.67	.69	.72	.78	.82	.82
MONTH	07	07	07	07	07	7	07	07	07	7	7	04	04

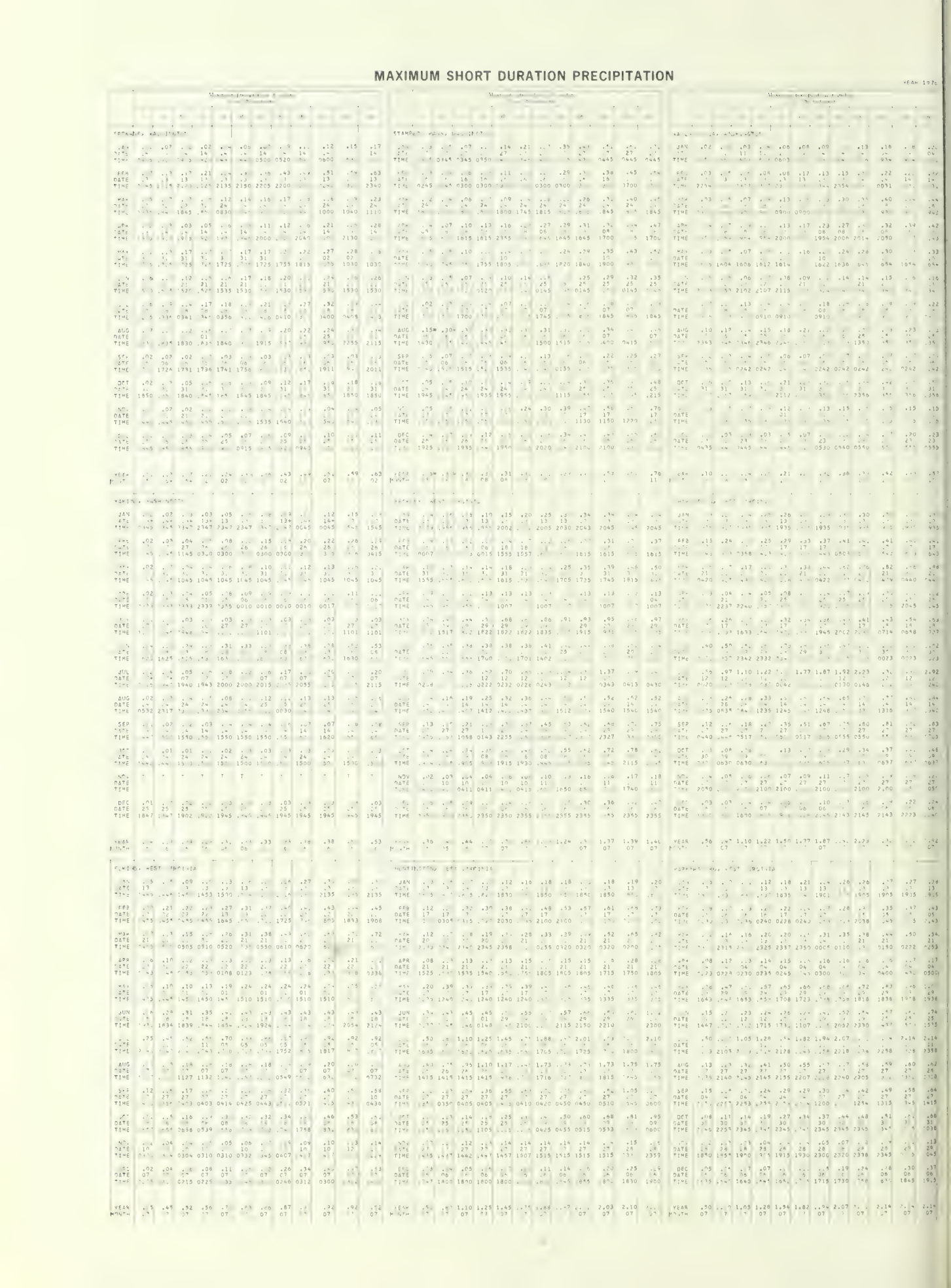
WENDOVER, UTAH

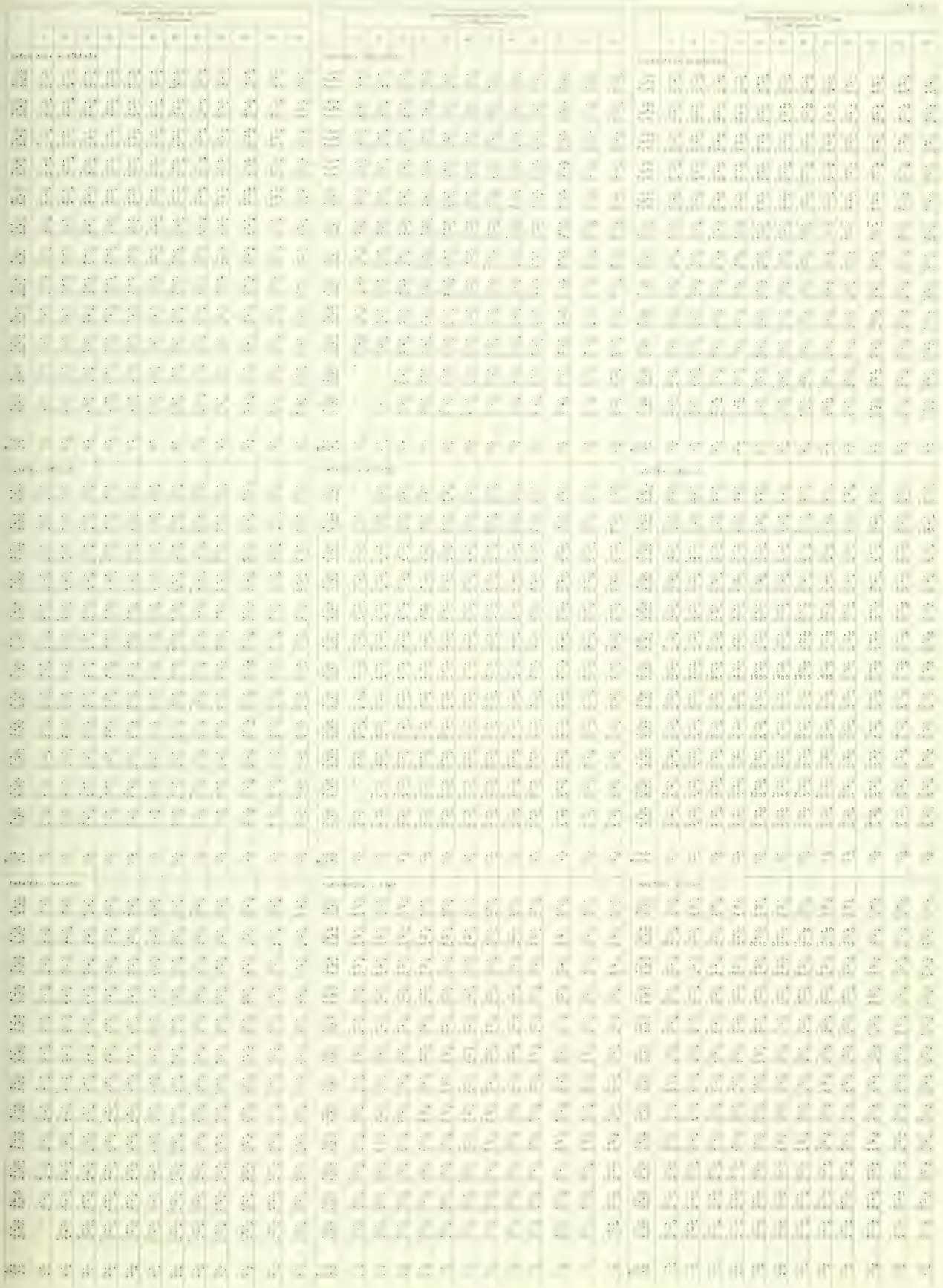
JAN	.01	.02	.02	.02	.03	.03	.03	.03	.03	.03	.03	.03	.03
DATE	04	04	04	04	04	04	04	04	04	04	04	04	04
TIME	1510	1514	1520	1525	1535	1605	1625	1630	1630	1630	1630	1630	1630
FEB	.02	.03	.03	.04	.05	.6	.07	.09	.09	.11	.14	.14	.14
DATE	09	09	09	09	09	09	09	09	09	09	09	09	09
TIME	1732	1742	1733	1738	1748	1818	1838	1846	1918	1948	2008	2008	2008
MAR	.04	.04	.04	.05	.6	.7	.8	.10	.11	.11	.12	.12	.12
DATE	01	01	01	01	01	01	01	01	01	01	01	01	01
TIME	0834	0834	0845	0845	0835	1700	1015	1549	1549	1549	1129	1129	1129
APR	.08	.13	.14	.15	.15	.13	.13	.15	.15	.15	.15	.15	.15
DATE	25	25	25	25	25	25	25	25	25	25	25	25	25
TIME	1525	1525	1530	1535	1545	1943	1943	1943	1701	1716	1716	1716	1716
MAY	.25	.27	.28	.29	.29	.29	.32	.35	.35	.35	.35	.35	.35
DATE	7	7	7	7	7	7	7	7	7	7	7	7	7
TIME	1452	1457	1502	1507	1517	1537	1547	1558	1558	1558	1558	1558	1558
JUN	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
DATE	11	11	11	11	11	11	11	11	11	11	11	11	11
TIME	1023	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025
JUL	.38	.50	.51	.51	.54	.59	.67	.69	.69	.69	.69	.69	.69
DATE	31	31	31	31	31	31	31	31	31	31	31	31	31
TIME	1605	1609	1610	1615	1625	1634	1345	1715	1735	1755	1825	1825	1825
AUG	.35	.38	.39	.39	.39	.39	.61	.67	.67	.70	.70	.71	.71
DATE	23	23	23	23	23	23	23	23	23	23	23	23	23
TIME	2033	2008	2013	2018	2028	2043	2058	2108	2148	2208	2247	2247	2247
SEP	.13	.14	.15	.15	.15	.15	.16	.16	.16	.16	.16	.16	.16
DATE	06	06	06	06	06	06	06	06	06	06	06	06	06
TIME	1616	1621	1616	1621	1631	1646	1721	1721	1731	1731	1731	1731	1731
OCT	.01	.01	.02	.03	.04	.05	.05	.05	.05	.05	.05	.07	.07
DATE	02	02	02	02	02	02	02	02	02	02	02	02	02
TIME	0730	0738	0740	0740	0755	0815	0825	0845	0914	0924	0944	1930	1930
NOV	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.02	.02
DATE	14	14	14	14	14	14	14	14	14	14	14	14	14
TIME	1529	1529	1529	1529	1529	1529	1529	1529	1529	1529	1529	1529	1529
DEC	.01	.01	.02	.02	.3	.4	.6	.7	.7	.7	.8	.8	.8
DATE	09	09	09	09	09	09	09	09	09	09	09	09	09
TIME	0056	0056	0056	0056	0056	0056	0056	0056	0056	0130	0130	0130	0130
YEAR	.25	.38	.39	.39	.39	.39	.61	.67	.67	.70	.70	.71	.71
MONTH	08	08	08	08	08	08	08	08	08	08	08	08	08

JAN	.04	.7	.8	.9	.10	.11	.14	.16	.21	.23	.25	.26	.27
DATE	24	24	24	24	24	24	24	24	24	24	24	24	24
TIME	1255	1300	1305	1316	1316	1316	1316	1316	1316	1316	1316	1429	1429
FEB	.13	.18	.19	.21	.21	.21	.21	.21	.21	.21	.21	.21	.21
DATE	21	21	21	21	21	21	21	21	21	21	21	21	21
TIME	1345	1345	1345	1340	1400	1400	1430	1450	1515	1540	1545	1545	1545
MAR	.15	.23	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27
DATE	7	7	7	7	7	7	7	7	7	7	7	7	7
TIME	1255	1300	1305	1316	1316	1316	1316	1316	1316	1316	1316	1429	1429
APR	.3	.3	.27	.36	.4	.4	.4	.4	.4	.4	.4	1.15	.4
DATE	1	1	1	1	1	1	1	1	1	1	1	1	1
TIME	0448	0448	0448	0448	0448	0448	0448	0448	0448	0448	0448	0448	0448
MAY	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
DATE	7	7	7	7	7	7	7	7	7	7	7	7	7
TIME	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434	0434
JUN	.37	.44	.49	.51	.53	.57	.65	.70	.75	.75	.75	.75	.75
DATE	14	14	14	14	14	14	14	14	14	14	14	14	14
TIME	1510	1615	1625	1625	1625	1625	1625	1625	1625	1625	1625	1625	1625
JUL	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
DATE	7

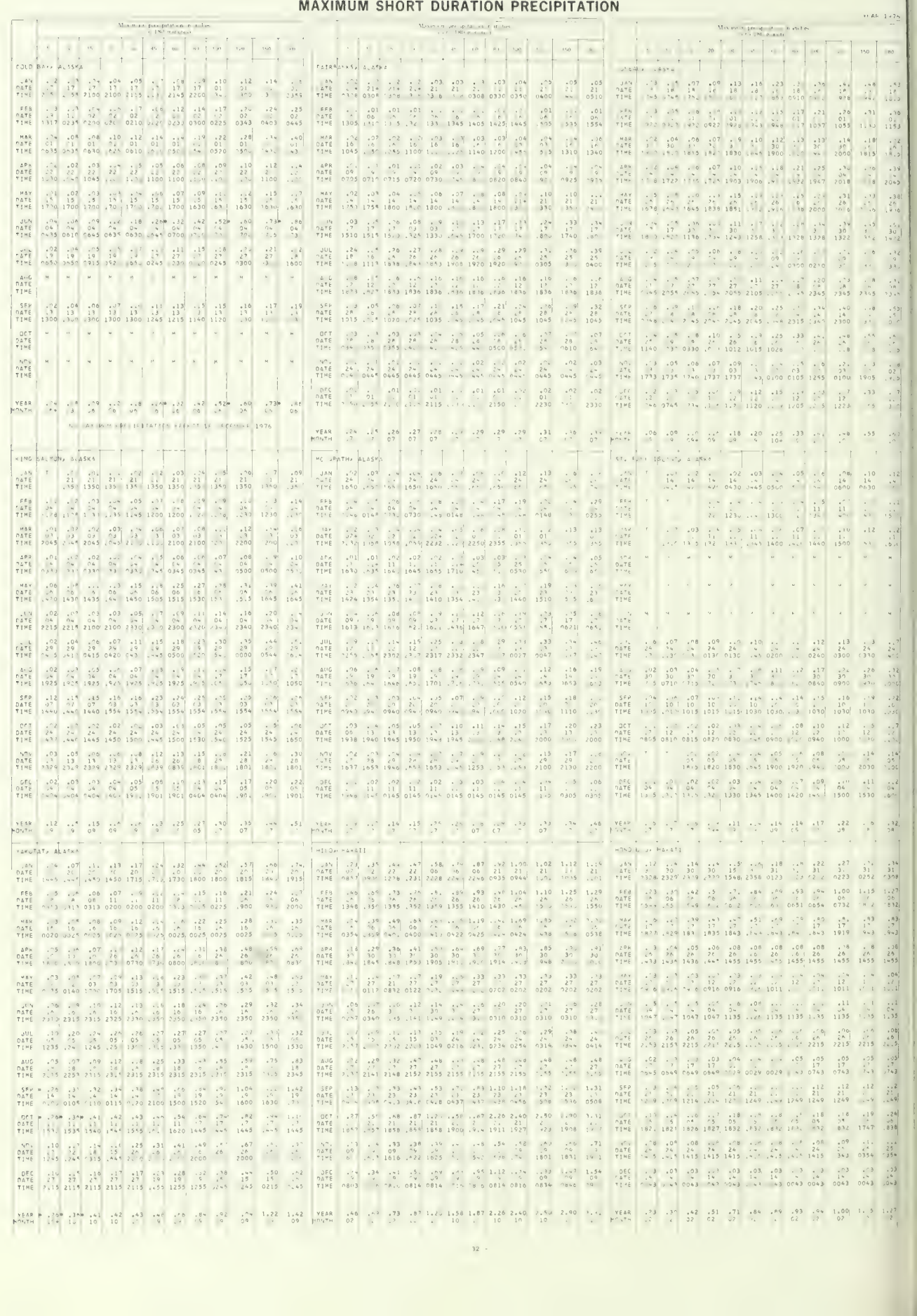


MAXIMUM SHORT DURATION PRECIPITATION

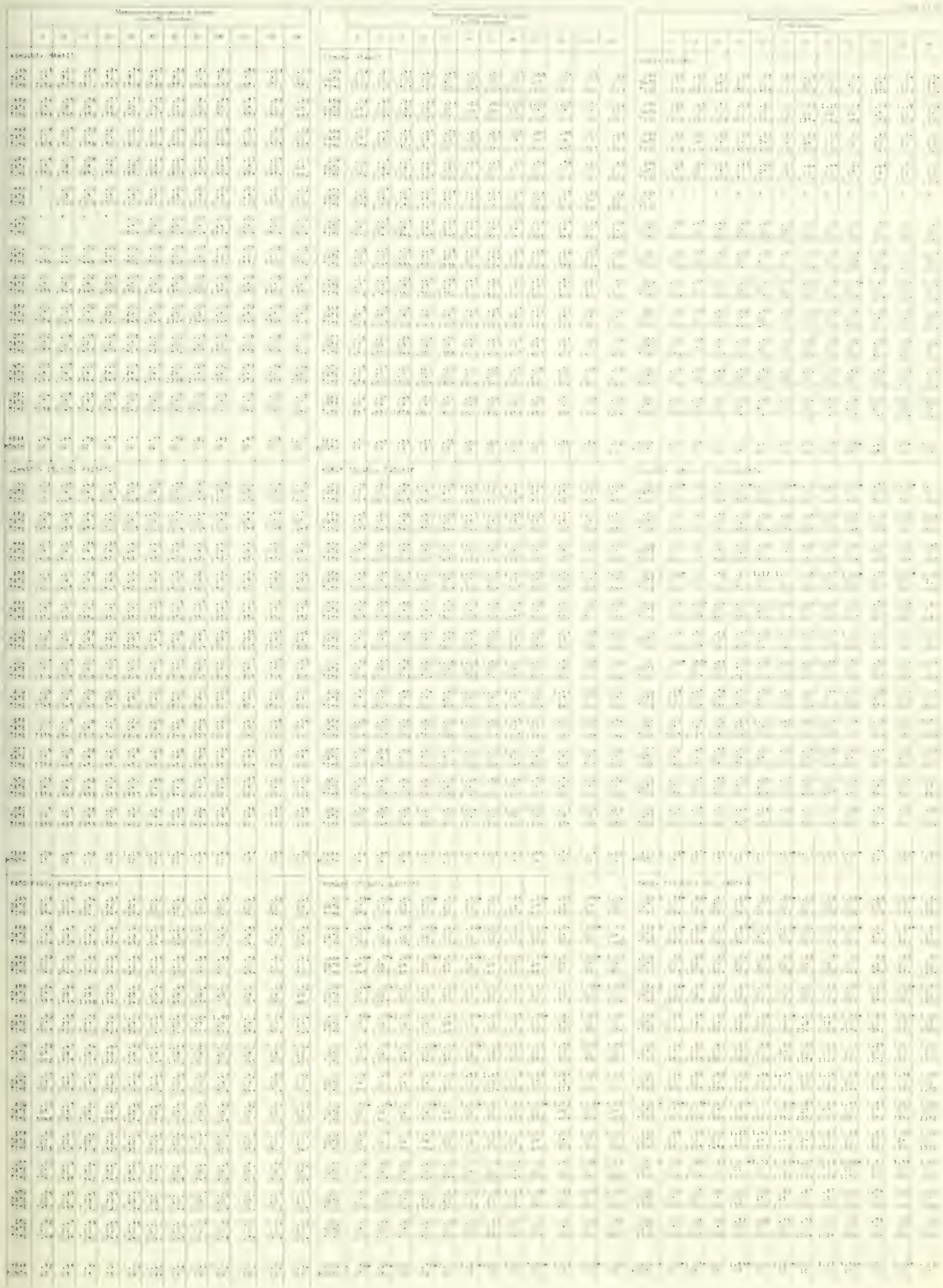




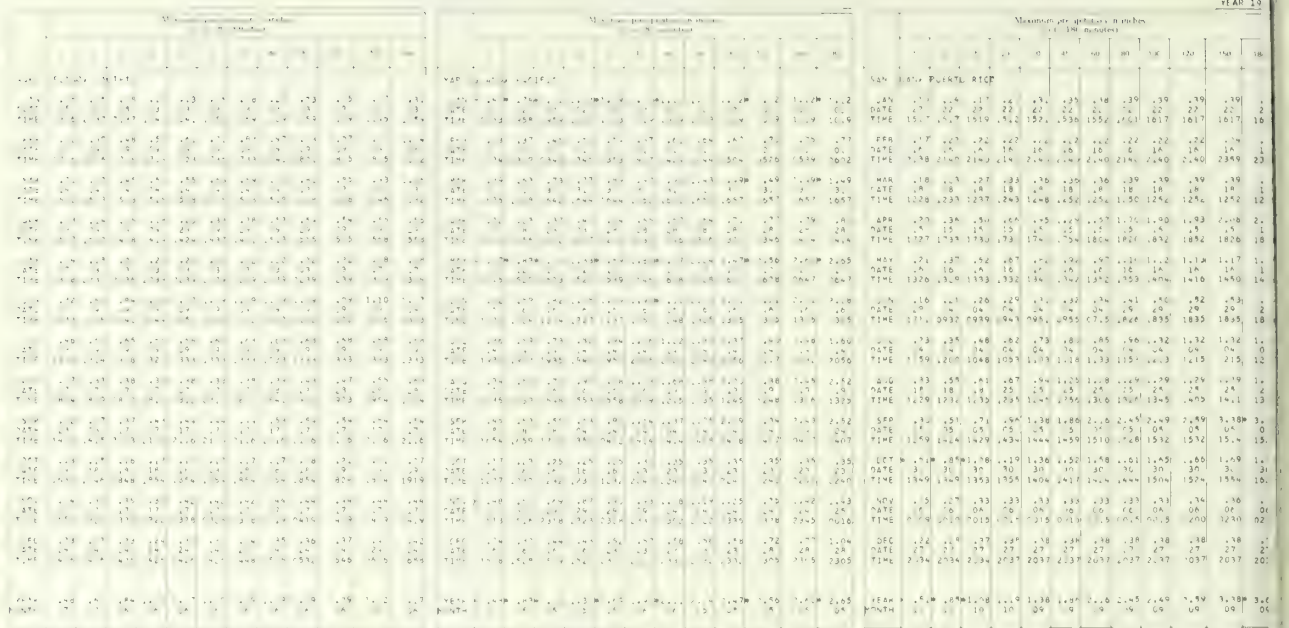
MAXIMUM SHORT DURATION PRECIPITATION



MAXIMUM SHORT DURATION PRECIPITATION



MAXIMUM SHORT DURATION PRECIPITATION



SUNSHINE, AMOUNT AND PERCENT

Station	January		February		March		April		May		June		July		August		September		October		November		December		Annual	
	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible
ALABAMA																										
[illegible]	[illegible]	[illegible]	194	56	201	51	25[illegible]	64	246	57	253	57	[illegible]	[illegible]	[illegible]	[illegible]	284	75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2612	59
MONTGOMERY	1[illegible]	57	222	63	277	71	3[illegible]	79	2[illegible]	57	3[illegible]	74	[illegible]	[illegible]	2[illegible]	[illegible]	268	74	212	61	174	50	1[illegible]	43	2[illegible]	64
ALASKA																										
[illegible]	31	11	165	61	163	45	2[illegible]	41	249	56	337	69	[illegible]	[illegible]	2[illegible]	[illegible]	2[illegible]	[illegible]	3[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	2244	50
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ARIZONA																										
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ARKANSAS																										
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CALIFORNIA																										
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COLORADO																										
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CONNECTICUT																										
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DISTRICT OF COLUMBIA																										
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FLORIDA																										
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KEY WEST	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3703	83
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GEORGIA																										
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2711	[illegible]
HAWAII																										
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IDAHO																										
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ILLINOIS																										
CAIRO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2999	[illegible]
CHICAGO MIDWAY	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2857	[illegible]
MOLINE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2970	[illegible]
PEORIA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2851	[illegible]
SPRINGFIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2919	[illegible]
INDIANA																										
EVANSVILLE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3058	[illegible]
FORT WAYNE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3043	[illegible]
INDIANAPOLIS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2793	[illegible]
IOWA																										
DES MOINES	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3007	[illegible]
SIOUX CITY	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3218	[illegible]
KANSAS																										
CONCORDIA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3685	[illegible]
DODGE CITY	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3341	[illegible]
TOPEKA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3223	[illegible]
WICHITA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3429	[illegible]
KENTUCKY																										
LOUISVILLE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2873	[illegible]
LOUISIANA																										
NEW ORLEANS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3001	[illegible]
SHREVEPORT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2634	[illegible]
MAINE																										
PORTLAND	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MARYLAND																										
BALTIMORE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MASSACHUSETTS																										
BLUE HILL OBS R	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BOSTON	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MICHIGAN																										
ALPENA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DETROIT METRO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GRAND RAPIDS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LANSING	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MARQUETTE U	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SAULT STE MARIE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SUNSHINE, AMOUNT AND PERCENT

YEAR 1976

Station	January		February		March		April		May		June		July		August		September		October		November		December		Annual	
	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible
MINNESOTA																										
DULUTH	109	39	157	59	147	40	249	61	336	72	326	69	359	75	337	77	256	68	126	37	121	43	119	45	2642	59
MINNEAPOLIS	117	41	182	66	184	50	263	65	343	74	387	83	412	87	368	85	299	80	211	62	177	62	149	54	3091	69
MISSISSIPPI																										
JACKSON	179	56	177	55	143	44	290	75	244	57	276	65	275	63	250	61	215	58	212	60	185	59	171	55	2636	59
MISSOURI																										
COLUMBIA REGIONAL	214	67	209	67	219	59	248	62	257	58	334	75	324	72	288	69	245	66	210	61	228	74	237	80	3001	67
KANSAS CITY	186	61	207	66	245	66	319	80	375	84	367	82	389	86	341	80	319	85	293	67	211	70	236	80	3427	77
ST LOUIS	215	71	240	77	319	86	322	81	276	62	302	68	368	82	320	76	287	77	230	66	218	72	212	72	3309	74
SPRINGFIELD	206	67	167	53	236	64	216	55	280	64	312	71	359	80	330	78	227	61	205	59	204	67	216	72	2956	66
MONTANA																										
BILLINGS	130	46	150	50	241	65	243	60	355	77	283	60	389	82	333	76	289	77	215	63	157	55	109	40	2892	63
GREAT FALLS	114	41	140	47	267	72	208	51	313	67	209	44	366	76	346	81	318	84	215	64	146	52	95	36	2747	61
HAVRE	133	49	177	60	319	87	353	86	414	88	375	78	429	88	388	88	337	89	223	66	171	62	79	31	3398	76
HELENA	104	42	139	46	214	58	216	53	317	68	232	49	353	74	275	63	280	74	213	63	131	46	109	41	2595	58
MISSOULA	96	34	139	46	202	54	223	55	314	67	236	50	356	74	273	62	298	79	219	65	103	37	37	14	2496	56
NEBRASKA																										
LINCOLN	194	65	201	65	213	57	231	58	305	68	365	81	321	70	330	77	269	72	222	64	223	75	202	70	3076	69
NORTH PLATTE	198	67	194	63	248	67	212	53	313	70	355	78	337	73	331	77	265	71	243	71	210	71	206	72	3111	70
OMAHA	210	71	190	62	207	56	231	58	307	68	338	75	271	59	300	70	265	71	207	60	195	66	173	60	2894	65
VALENTINE	198	68	201	66	246	67	254	63	355	78	391	85	354	76	343	80	291	78	270	79	213	73	179	63	3295	74
NEVADA																										
ELY	217	72	232	74	270	73	244	61	307	69	363	81	327	72	353	83	249	67	289	84	247	82	255	87	3354	75
LAS VEGAS	295	95	252	80	344	93	351	89	416	95	424	97	400	90	411	98			335	96	293	95	292	96		
RENO	214	68	164	53	315	85	335	84	421	95	424	95	409	90	377	89	322	86	308	89	259	86	250	85	3788	83
WINNEMUCCA	197	66	182	59	245	66	215	54	381	85	372	82	397	87	343	80	296	79	276	80	238	80	245	85	3386	76
NEW HAMPSHIRE																										
CONCORD	139	48	145	47	196	53	267	66	292	64	293	64	294	63	299	69	237	63	189	55	177	61	151	54	2681	60
MT WASHINGTON OBS	93	32	72	23	140	37	168	41	134	29	149	32	134	28	168	38	128	34	84	24	29	10	70	25	1368	30
NEW JERSEY																										
ATLANTIC CITY	148	49	206	66	226	61	266	67	262	59	267	60	272	60	308	73	230	62	166	48	165	55	159	54	2675	60
TRENTON	156	52	194	62	199	54	270	68	213	48	234	52	251	55	271	64	208	56	169	49	185	62	153	53	2502	56
NEW MEXICO																										
ALBUQUERQUE	276	88	244	77	270	73	310	79	330	76	368	85	330	75	320	77	262	71	243	69	270	87	264	86	3487	78
ROSWELL	250	79	232	73	314	85	328	84	390	91	386	90	397	91	362	87	317	85	287	81	233	74	262	85	3758	83
NEW YORK																										
ALBANY	152	52	160	52	228	62	281	70	199	44	279	61	259	56	246	57	213	57	110	32	97	35	138	49	2362	53
BINGHAMTON	135	46	110	36	152	41	242	60	208	46	292	64	243	53	271	63	191	51	149	43	98	33	124	44	2215	50
BUFFALO	96	33	98	32	133	36	237	59	210	46	281	61	230	49	287	67	208	55	140	41	86	29	84	30	2088	47
NEW YORK C	143	48	207	67	258	70	322	81	271	60	261	58	268	59	313	73	238	64	168	49	165	55	174	60	2785	63
ROCHESTER	102	35	96	31	142	38	242	60	173	38	266	58	224	48	251	58	213	57	135	39	86	30	103	37	2032	46
SYRACUSE	118	40	102	33	160	43	238	59	175	38	265	58	209	45	239	55	170	45	106	31	67	23	105	38	1955	44
NORTH CAROLINA																										
ASHEVILLE	193	62	211	66	196	53	340	87	290	67	240	55	250	56	249	60	243	65	179	51	189	61	200	66	2779	62
CAPE HATTERAS R	140	45	188	59	198	53	301	77	244	56	163	37	170	38	190	46	165	44	158	45	156	50	136	45	2210	50
CHARLOTTE	223	71	257	81	253	68	354	90	339	78	238	55	301	68	290	70	218	59	206	59	190	61	184	60	3053	69
GREENSBORO	197	63	231	73	211	57	338	86	237	54	240	55	288	65	264	63	211	57	180	52	181	59	196	65	2776	62
RALEIGH	190	61	224	71	213	57	331	84	260	60	225	51	259	58	240	57	174	47	192	55	186	60	195	64	2687	60
WILMINGTON	218	69	238	75	210	56	312	80	213	49	187	43	264	60	262	58	241	65	238	68	192	61	167	54	2721	61
NORTH DAKOTA																										
BISMARCK	154	55	166	55	183	50	261	64	368	79	348	73	373	78	354	81	312	83	194	57	162	58	88	33	2963	66
FARGO	137	49	170	57	243	66	276	68	366	79	344	72	375	78	348	79	292	77	185	55	155	55	122	46	3013	67
WILLISTON	144	52	149	50	227	61	227	55	345	73	275	57	340	70	319	72	293	78	151	45	158	57	72	27	2699	60
OHIO																										
CINCINNATI ARBE AB	130	33	141	45	182	49	222	56	184	41	142	32	229	51	268	58	202	54	151	43	177	59	146	50	2124	48
CLEVELAND	53	18	123	40	179	48	271	68	275	61	310	68					234	68	156	45	135	46				
COLUMBUS	108	36	145	47	157	42	243	61	221	49	192	43	244	53	266	63	190	51	151	44	145	48	119	41	2180	49
DAYTON U	121	40	160	52	222	60	308	77	275	62	274	61	324	71	325	77	259	69	195	56	156	52	123	42	2742	62
TOLEDO	99	34	154	50	183	49	258	64	279	62	324	71	311	67	269	63	237	63	156	45	124	42	191	66	2524	57
OKLAHOMA																										
OKLAHOMA CITY	261	83	247	78	266	72	200	51	245	56			385	87			231	62	202	58	203	66	239	79		
TULSA	221	71	198	63	216	58	220	56	267	61	321	73	350	79	315	75	215	58	195	56	206	67	216	71	2939	66
OREGON																										
PORTLAND	87	30	139	46	252	68	258	63	285	62	292	62	341	72	291	53	233	62	185	55	134	47	63	23	2499	56
PACIFIC AREA																										
GUAM TAGLAC R	162	46	196	46	262	70	267	72	218	59	229	59	214	54	169	43	132	36	205	56	189	55	234	66	2436	55
JOHNSTON	225	65	257	76	291	78	303	81	343	86	340	86	352	87	339	86	323	88	260	71	244	72	262	76	3540	80
KOROR P	201	55	204	59	157	42	182	49	207	54	156	42	168	43	133	35	182	50	173	47	185	53	171	47	2120	48
MAJURO	198	54	188	54	189	50	154	42	165	43	185	49	200	52	243	63	196	54	177	48	151	43	198	55	2242	51
PAGO PAGO	136	34	112	31	173	46	154	44	129	36	121	36	108	31	146	40	231	66	207	54	178	46	107	26	1800	41
PONAPE R	227	62	199	58	172	46	81	22	125	32	139	37	142	37	109	28	116	32	198	42	97	27	52	14	1615	37
TRUK MOEN ISLAND	121	33	175	51	149	40	139	38	121	31	134	36	182	47	184	48	133	36	178	48	125	35	112	31	1752	40
WAKE	273	79	248	74	287	77	269	71	343	85	348	87	364	89	346	87	308	84	293	81	220	65	255	75	3552	80
YAP R	223	62	240	70	259	69	250	68	265	68	218	57	235	60	220	57	203	56	263	71	210	60	219	61	2805	63
PENNSYLVANIA																										
HARRISBURG	142	47	172	55	170	46	297	75	251	56	225	50	313	69	315	74	230	62	169	49	175	59	178	61	2638	59
PHILADELPHIA	172	57	204	66	219	59	293	74	242	54	250	56	280	62	306	72	225	60	184	53	199	66	168	57	2742	61
PITTSBURGH	85	28	141	45	180	49	242	61	189	42	217	48	173	38	198	47	202	54	142	41	132	44	119	41	2019	45
PITTSBURGH U	85	28	139	45	179	48	240	60	187	42							176	47	76	22	92	31	91	18		
SCRANTON	133	45	156	51	181	49	251	63	207	46	258	57	234	51	262	61	192	51	137	40	109	37	139	48	2260	51
RHODE ISLAND																										
PROVIDENCE	142	48	198	64	209	56	215	54	238	57	260	57	278	60	287	60	208	56	169	49	189	64	170	60	2553	57
SOUTH CAROLINA																										
CHARLESTON	243	76	277	86	282	76	341	87	318	74	269	63	355	81	313	76	239	64	253	72	185	59	127	41	3201	72
COLUMBIA	207	66	236	74	185	50	306	78	203	47	151	35	273	62	295	66	175	47	214	61	179	57	162	53	2565	58
GREVILLE-SPRTNBRG	208	66	241	76	211	57	331	84	239	55	217	50	294	67	310	74	223	60	216	62	204	69	210	69	2903	65

SUNSHINE, AMOUNT AND PERCENT

YEAR 1976

Station	January		February		March		April		May		June		July		August		September		October		November		December		Annual	
	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible
SOUTH DAKOTA																										
HURON	200	70	187	67	237	64	256	63	349	74	363	78	397	85	385	82	300	80	252	74	192	66	137	57	3245	73
RAPID CITY	192	67	213	73	224	60	213	53	283	62	322	69	353	75	332	77	278	74	240	70	188	64	137	57	2984	67
TENNESSEE																										
CHATTANOOGA	159	51	190	60	195	53	285	73	243	58	217	50	270	63	303	73	191	51	174	50	176	57	183	60	2597	58
KNOXVILLE	150	48	204	64	196	53	337	86	305	74	240	55	333	75	321	77	200	54	163	47	184	60	186	61	2819	63
MEMPHIS	220	7	198	62	215	58	314	80	289	67	325	75	400	90	375	90	273	73	230	67	201	65	212	70	3259	73
NASHVILLE	194	59	194	61	216	58	322	82	281	64	278	64	329	74	324	77	248	67	192	55	216	70	190	63	2955	66
TEXAS																										
ABILENE	265	81	283	79	243	65	201	52	302	70	299	70	265	61	327	79	219	59	214	61	187	59	212	68	2981	67
AMARILLO	283	90	282	79	319	86	286	73	327	78	336	82	325	74	334	80	248	67	226	65	232	74	272	89	3459	78
AUSTIN	218	67	188	58	115	31	138	36	189	48	292	69	212	49	326	79	253	68	195	55	155	49	147	46	2427	55
BROWNSVILLE	155	47	222	68	170	44	216	56	276	64	342	83	278	66	292	72	256	69	195	54	126	39	88	27	2617	59
CORPUS CHRISTI	201	61	215	66	124	33	239	62	242	58	301	72	226	53	287	71	240	65	192	54	157	49	96	30	2520	57
EL PASO	242	88	280	87	343	92	327	84	369	88	404	95	321	74	334	81	286	72	284	80	243	77	245	78	3699	83
FORT WORTH	193	59	208	64	135	36	246	69	290	69	324	77	269	63	303	74	235	64	200	56	129	40	129	40	2681	60
GALVESTON	104	61	190	59	174	33	161	41	256	61	296	70	198	46	291	71	252	68	199	56	158	49	156	49	2478	56
LUBBOCK	265	84	245	77	231	74	275	70	341	79	335	78	297	68	332	80	244	66	246	70	228	73	270	87	3338	76
PORT ARTHUR	198	61	228	71	150	40	234	61	310	73	302	72	254	59	298	73	245	66	202	57	177	59	175	55	2774	62
SAN ANTONIO	231	71	223	69	186	50	134	35	236	54	280	67	183	43	309	76	248	67	209	59	139	44	137	43	2514	56
UTAH																										
MILFORD	239	78	208	67	279	75	276	70	357	81	373	84	319	71	384	91	279	75	291	84	252	84	251	85	3508	79
SALT LAKE CITY	161	54	186	60	241	64	282	71	346	77	374	83	388	85	382	90	305	82	293	83	231	78	247	86	3447	77
VERMONT																										
BURLINGTON	129	45	114	37	162	44	233	62	196	43	289	62	297	63	296	59	162	43	139	41	82	28	113	41	2192	49
VIRGINIA																										
LYNCHBURG	157	51	183	58	231	62	341	92	273	67	256	58	307	68	323	77	253	68	198	57	184	60	194	65	2920	66
NORFOLK	215	7	228	72	241	65	310	79	223	51	229	52							188	54	219	71				
RICHMOND	174	57	222	71	205	55	337	89	222	50	233	53	251	56	252	60	240	65	190	55	208	68	185	62	2720	61
WASHINGTON																										
OLYMPIA/UTE	56	21	66	22	99	24	159	39	190	40	158	33	214	42	117	26	186	49	150	43	145	52	61	24	1582	35
SEATTLE-TACOMA	71	28	181	51	199	54	240	64	325	69	318	67	337	70	145	33	247	55	132	39	102	36	44	17	2291	51
SPOKANE	31	11	90	30	174	47	222	54	331	71	312	65	333	69	233	53	308	82	209	62	119	43	78	30	2441	55
WALLA WALLA	46	23	107	34	186	50	219	54	329	71	307	65	368	77	280	64	288	77	224	66	77	27	64	24	2515	56
WEST INDIES																										
SAN JUAN P.R.	225	65	220	66	291	79	208	55	271	67	317	80	315	78	284	72	243	66	196	54	297	88	296	86	3163	71
WEST VIRGINIA																										
PARKERSBURG	119	39	180	58	245	66	314	79	306	69	245	55	276	61	283	67	210	56	148	43	159	53	124	42	2607	59
WISCONSIN																										
GREEN BAY	122	42	137	45	170	46	252	62	283	62	317	68	341	72	327	75	301	80	187	55	173	60	136	49	2747	62
MADISON	170	58	189	59	177	48	244	66	276	61	318	69	336	72	318	74	276	74	148	55	166	57	137	56	2804	63
MILWAUKEE	155	53	173	57	176	48	253	63	293	64	327	71	338	73	309	72	249	66	152	44	188	64	164	58	2778	62
WYOMING																										
CHEYENNE	161	54	173	56	246	66	182	45	212	47	290	65	253	55	239	56	219	58	233	68	140	47	177	61	2484	56
LANDER	197	67	224	73	278	75	247	64	321	71	327	71	366	79	338	83	283	75	248	73	184	63	209	74	3250	73
SHERIDAN	136	47	150	49	266	72	225	56	293	64	292	63	379	81	338	78	281	75	199	58	166	59	154	56	2879	65

Data from airport unless otherwise specified.
"U" indicates Urban, "R" indicates Rural, sites.

ANNUAL CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Temperature: Averages: Daily maximum	Daily minimum	Annual	Extremes: Highest	Date	Lowest	Date	Heating degree days	Cooling degree days	Precipitation: Total	Greatest in 24 hours	Date (s)	Snowf: Total	Greatest in 24 hours	Date (s)	Relative humidity: 1:00 am EST	7:00 am EST	1:00 pm EST	7:00 pm EST	Wind: Average speed	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Direction	Date	Average sky cover sunrise to sunset	Number of days: Sunrise to sunset: Clear, 0-3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation .25mm or more	Snow .254mm or more	Thunderstorms	Heavy fog	Max temp: 32.2 C and above	0 C and below	Min temp: 0 C and below	-17.8 C and below
	C	C	C	C		C		Base 18.3 C	Base 18.3 C	mm	mm		mm	mm		%	%	%	%	m/s	m/s		m/s			Tenths											
ALABAMA																																				
BIRMINGHAM	22.1	9.3	15.7	36.7	JUL 24	-12.2	JAN 9	1709	793	1401	89	MAY 13-14+	T	T	DEC 31 +	83	86	61	62	3.0	0.2	33	42.4	[illegible]	DEC 30	6.1	107	97	167	109	0	54	11	33	3	66	0
HUNTSVILLE	20.7	8.4	14.6	35.6	JUL 25	-12.8	DEC 31	2013	675	1355	92	MAY 13-14	T		NOV 28 +	76	83	56	61	3.7	0.4	22	19.2	23	FEB 4	5.6	123	92	151	115	1	5	75	34	7	78	0
MOBILE	24.8	13.2	19.1	37.8	JUL 23	-5.6	JAN 9	1031	1336	1486	134	MAR 26-27	T	T	DEC 22	86	94	53	64	3.4	0.2	4	11.6	31	DEC 30	5.0	124	94	148	116		46	4	7	1	28	0
MONTGOMERY	23.1	10.7	16.9	35.6	JUL 23	-8.9	DEC 22	1437	961	1154	76	MAY 14	T	T	JAN 8	88	85	55	61	2.6	0.3	32	17.9	[illegible]	3	5.4	124	116	124	118	1	51	27	50		54	0
ALASKA																																				
ANCHORAGE	5.9	-1.1	2.4	25.6	JUL 6	-25.0	FEB 10	5757	2	369	30	SEP 20	2136	366	MAR 18+19	74	65	71	77	3.4	0.2	17	13.4	27	JAN 30	7.6	51	40	255	117	25	1	16	14	111	144	24
ANNETTE	11.1	4.9	8.0	31.7	JUL 30	-11.7	FEB 29	3729	4	3193	90	SEP 9-10	1745	218	FEB 23-24	76	71	79	81	4.6	2.5	14	17.0	16	FEB 7	8.6	27	52	287	247	23	1	4	16	5	58	1
BARROW	-10.4	-15.9	-13.2	10.7	JUL 29	-40.6	FEB 26+	11515	0	73	8	SEP 2	561	41	NOV 13	81	75	81	83	4.7	2.1	5	14.3	05	NOV 24+		47	45	189	87	5	2	52		253	328	174
BARTER ISLAND	-9.9	-16.3	-13.1	11.7	JUL 29	-45.0	JAN 22	11481	0	128	14	MAY 27-28	1039	127	MAY 27-28	85	82	84	84	6.2	0.8	8	29.6	27	JAN 11		54	87	174	93	1		118	1	239	320	148
BETHEL	.9	-7.6	-3.3	26.1	JUN 12	-38.3	FEB 8	7878	0	185	11	SEP 28	1006	71	FEB 4-5	82	71	76	84	5.1	1.5	1	19.2	18	MAR 6	7.5	60	47	239	143	13	4	48	13	164	234	95
BETTLES	.0	-9.4	-4.8	28.9	JUL 22	-50.6	FEB 8	9439	15	394	21	AUG 7-8	243A	274	OCT 26-27		64	70												122	33			4	140	208	133
BIG DELTA	4.0	-6.1	-1.1	30.6	AUG 1	-43.3	FEB 9	7063	20	273	46	JUL 24-25	505	102	MAR 7		56	66												46	9			5	138	213	88
COLD BAY	4.7	-1.1	1.8	21.1	AUG 4	-20.0	MAR 28	9985	0	802	52	MAR 1	2764	152	DEC 19-20	89	82	87	89	7.0	0.6	24	27.8	15	JAN 4	8.8	11	65	301	246	36	0	3	1	7	68	4
FAIRBANKS	3.0	-7.8	-2.4	32.2	JUL 1	-42.2	FEB 9	7551	22	186	46	OCT 23-24	1019	99	OCT 23-24	76	55	62	74	2.5	0.5	35	13.0	03	MAY 12	6.5	64	84	192	92	14	6	17	5	149	247	116
GULKANA	4.0									580	85	DEC 6-7	1506	305	DEC 21-22															71	18						
HOMER	6.8	-.4	3.1	20.6	JUL 9	-18.9	JAN 12	5519	0	823	45	NOV 9-10	2949	338	MAR 27-28	81	73	80	86				14.3	1	NOV 20	7.5	59	73	143	147	30		12	1	74	189	2
JUNEAU	8.8	2.4	5.6	28.9	JUL 31	-19.4	JAN 13	4596	3	1433	47	JAN 18	3134	244	DEC 9-10	83	75	84	88	4.0	2.7	11	17.4	22	OCT 26	8.8	23	36	337	241	36	1	21	10	35	102	4
KING SALMON	4.3	-4.9	-.3	23.9	AUG 4+	-37.8	FEB 24	6749	0	466	38	JUL 28-29	1402	144	JAN 20-21	85	71	81	87	4.2	1.9	11	17.9	15	NOV 11	7.8	39	72	155	172	21	3	48	7	114	218	44
KODIAK	7.9	1.5	4.7	26.7	JUL 9	-17.8	JAN 23	4994	3	2142	45	AUG 5-6	2616	305	JAN 9	84	74	81	84	5.1	1.0	7	19.2	31	FEB 8	7.8	58	54	154	223	33	1	16	9	41	146	1
KOTZEBUE	-3.2	-10.4	-6.8	21.1	JUL 24	-39.4	FEB 14+	9162	0	187	19	JUL 2-3	1242	107	NOV 21-22	77	73	76	79	5.4	0.9	9	21.6	4	MAR 6	6.0	110	94	162	91	17	1	17	1	27	248	134
MC GRATH	1.6	-10.2	-4.3	29.4	JUL 22	-46.7	FEB 10	8240	1	333	20	JUL 23-24	2286	343	MAY 3-4	77	64	70	81	2.2	0.4	32	11.6	17	JAN 30	6.9	69	103	1	127	28	2	24	45	159	234	128
NOME	-.7	-9.5	-5.1	25.0	JUL 13	-39.4	FEB 8+	8523	1	245	76	AUG 14-15	1059	86	MAR 2-3	75	70	73	76	4.4	1.2	9	18.5	20	JAN 7	6.2	104	78	187	113	14	0	25	5	147	239	111
ST. PAUL ISLAND	1.4	-3.6	-1.1	14.4	JUL 1	-25.6	JAN 29	7055	0	347	26	MAY 14-15	1351	94	FEB 10-11	81	77		81				24.1	27	JAN 13	8.4	24	58	274	142	17	0	96	1	142	206	97
TALKEETNA	6.7	-4.7	1.0	28.9	JUL 31	-38.3	FEB 11	6285	3	617	31	NOV 29-30	4178	447	MAR 3-4	79							21.6	27	JAN 30					131	37	6	4	59	112	207	58
UNALAKLEET											20	JUL 24		48	APR 24-25	77																				
VALDEZ	6.4	.4	3.4	24.4	AUG 22	-20.0	JAN 8+	5409	0	1990			602			8	74						13.4	34	FEB 8					217	70			7	78	178	2
YAKUTAT	7.8	.8	4.3	25.6	JUL 9	-21.7	JAN 6	5062	0	4615	152	OCT 16-17	7615	602	MAR 10-11	84	79	89	91	3.1	1.7	17	17.4	13	JAN 29	8.4	38	4	284	253	47	1	32	4	34	137	16
ARIZONA																																				
FLAGSTAFF	17.1	-.9	8.1	32.8	JUN 28	-24.4	JAN 2	3750	54	511	58	FEB 5	2469	305	FEB 5	34	33	36	63	3.2	0.7	20	17.4	11	DEC 25	4.1	165	9	91	95	16	46	23	3	9	206	3
PHOENIX	29.7	15.7	22.7	45.0	JUN 27	-3.3	JAN 2+	558	2203	202	26	JUL 24-25	T	T	MAR 3	28	21	34	44	3.7	0.7	13	30.4	58	DEC 7	3.1	223	75	67	72		0	0	109		4	0
TUCSON	27.4	12.9	20.2	42.2	JUN 27	-5.0	JAN 2	825	1533	150	32	SEP 25	147	97	MAR 3-4	30	24	40	49	3.9	1.4	14	17.4	5	MAY 4+	3.8	220	49	77	47	2	39		119	0	18	0
WINSLOW	21.3	3.2	12.3	38.9	JUL 10	-17.8	NOV 28	2755	593	173	16	JUL 11-12	157	74	NOV 26-27	37	26	51	63	4.2	1.6	21	28.5	13	APR 12+	3.9	179	112	75	49	4	28	2	74	4	156	1
YUMA	30.2	15.6	22.9	45.6	JUL 4+	-2.8	JAN 1	468	2182	94	16	DEC 31	0	0		31	22	43	53	3.8	0.4	27	45.5	5	SEP 10	2.8	256	71	45	3	0	13	1	104		2	0
ARKANSAS																																				
FORT SMITH	21.7	7.7	14.7	37.8	JUL 31+	-14.4	DEC 29	2049	758	852	55	MAY 12	119	119	NOV 13-14	78	83	52	52	3.3	0.3	3	17.9	1	MAR 26+	5.1	151	91	124	89	1	47	15	43	4	93	0
LITTLE ROCK	22.1	9.5	15.8	38.3	AUG 14	-12.8	JAN 8	1762	890	1093	76	JUN 24-25	25	25	NOV 14	75	79	53	56	3.6	1.5	23	27.4	5	FEB 7	5.4	137	89	141	99	1	39	10	48	3	53	0

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA

METRIC UNITS

YEAR 1976

State and Station	Temperature: Averages: Daily maximum	Daily minimum	Annual	Extremes: Highest	Date	Lowest	Date	Heating degree days	Cooling degree days	Precipitation: Total	Greatest in 24 hours	Date (s)	Snow: Total	Greatest in 24 hours	Date (s)	Relative humidity: 1:00 am EST	7:00 am EST	1:00 pm EST	7:00 pm EST	Wind: Average speed	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Direction	Date	Average sky cover sunrise to sunset	Number of days: Sunrise to sunset: Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation 25mm or more	Snow 25.4mm or more	Thunderstorms	Heavy fog	Max temp: 32.2 C and above	0 C and below	Min temp: 0 C and below	-17.8 C and below
	C	C	C	C		C		Base 18.3 C	Base 18.3 C	mm	mm		mm	mm		%	%	%	%	m/s	m/s		m/s			Tenths											
CALIFORNIA																																				
BAKERSFIELD	28.9	12.9	19.4	45.6	JUN 28	-2.8	JAN 1	971	1421	129	18	FEB 5-6	0	0		50	36	54	65	3.3	1.3	34	15.6	14	SEP 5	3.3	215	77	74	34	0	3	7	84	0	6	0
BISHOP	23.5	3.1	13.3	40.6	JUN 9	-13.3	JAN 1	2244	459	118	22	JUL 15-16	544	361	FEB 5+6	30	21						33.5		AUG 2	3.6	201	98	67	29	3			68	1	148	0
BLUE CANYON	15.8	5.9	10.9	31.1	AUG 31	-8.9	MAR 4+	2835	144	596	65	AUG 14-15	2195	320	MAR 29-1	39	43	51	49	2.3			13.4	22	FEB 19					56	20			0	6	80	0
EUREKA U	14.0	7.8	10.8	24.4	OCT 12+	-1.1	JAN 1	2711	0	551	39	FEB 27-28	T		MAR 1								16.1	N	NOV 26+	6.7	85	84	197	95	0			0	0	5	0
FRESNO	23.9	8.8	16.3	40.6	JUN 28+	-6.7	JAN 2	1500	798	280	39	OCT 1-2	T	T	FEB 5	58	40	67	82	2.7	1.1	30	15.6	NW	APR 15	3.7	201	83	82	37	0	6	20	73	0	47	0
LONG BEACH	24.8	13.4	19.1	40.0	JUN 27	1.1	JAN 2	499	833	187	31	SEP 10	0	0		59	53	75	86	2.6	0.9	25	13.4	28	APR 15	4.1	177	110	79	36	0	6	24	28	0	0	0
LOS ANGELES	22.2	13.8	17.9	37.2	JUN 24	2.2	JAN 2	592	680	235	37	SEP 10	0	0		63	64	79	81	3.7	1.8	25				4.4	157	122	87	37	0	7	22	8	0	0	0
LOS ANGELES U	23.8	13.1	18.6	38.9	JUN 27+	1.1	JAN 2	627	717	280	46	SEP 10-11	0	0												3.8	192	109	65	34	0			25	0	0	0
MT SHASTA H	7.3	2.4	9.8	35.6	JUL 26	-12.2	FEB 5	3179	129	341	51	APR 7-8	1118	224	APR 10-11	51	41	63	72											46	16			9	4	150	0
OAKLAND	18.4	10.1	14.3	33.9	SEP 8+	-.6	JAN 3	1557	110	219	43	DEC 29-30	25	25	FEB 5	73	66	81	85	3.7	1.9	28	17.9	04	NOV 26	4.6	156	113	97	41	1	5	14	6	0	4	0
REDWOOD FF	25.3	9.9	17.6	43.9	JUL 25	-4.4	JAN 2	1322	1121	193	31	APR 7-8 +	203	203	MAR 2	46	32	54	64	3.7	0.5	34	16.5	SE	MAR 24	4.7	165	76	125	42	1	8	17	99	0	28	0
SACRAMENTO	24.4	9.2	16.8	41.7	JUN 28	-3.9	JAN 2	1286	773	159	20	APR 7-8	51	51	FEB 5	55	37	65	76	3.2	1.4	23	15.2	NW	APR 15	3.8	195	101	70	31	1	3	20	71	0	22	0
SANDBERG R											69	FEB 8-9					40	49					26.8	34	MAR 19											
SAN DIEGO	22.4	15.0	18.8	36.1	NOV 4	2.8	JAN 2	441	673	285	46	FEB 8-9	0	0		57	58	70	71	3.1	1.5	28	14.3	WNW	APR 15	4.8	156	97	113	34	0	5	19	7	0	0	0
SAN FRANCISCO	18.7	8.9	13.8	36.1	JUN 27+	-.6	JAN 2	1716	107	255	68	DEC 29-30	T	T	MAR 1 +	65	57	72	78	4.3	2.9	29	18.3	30	APR 15	4.7	156	104	104	40	0	5	11	11	0	1	0
SAN FRANCISCO U	17.7	11.9	14.3	35.6	MAY 12	2.2	FEB 5	1544	114	222	54	DEC 29-30																		44				8	0	0	0
SANTA MARIA	21.4	7.4	14.4	38.9	JUN 25+	-6.7	JAN 2	1482	101	301	45	SEP 28-29	0	0		54	57									3.9	189	102	75	40	0			10	0	28	0
STOCKTON	23.9	8.8	16.3	41.1	JUN 28	-6.1	JAN 2	1492	780	142	19	APR 7-8	8	8	FEB 5	58	38	65	76	3.6	2.0	29	13.9	34	APR 15	4.3	176	97	93	37	0	6	33	70	0	47	0
COLORADO																																				
ALAMOSA	14.8	-5.7	4.8	31.7	JUL 30+	-30.6	NOV 28	4935	14	158	17	MAY 6	607	165	OCT 26	41	38	72	79							4.7	160	121	95	58	8			0	34	226	56
COLORADO SPRINGS	16.7	1.9	9.3	35.6	JUL 10	-22.2	NOV 28	3498	242	517	95	AUG 1-2	1036	241	APR 17	37	36	55	59	4.7	1.2	4	19.7	36	JAN 30	4.9	144	118	104	91	11	58	15	16	20	168	6
DENVER	18.4	2.4	10.6	36.7	JUL 10	-20.0	JAN 3	3176	371	341	43	AUG 1	1125	160	OCT 26	36	35	56	62	4.3	0.9	20	23.7	N	JAN 30	5.3	128	112	126	89	11	47	6	29	14	157	7
GRAND JUNCTION	19.7	3.1	11.1	40.6	JUL 10	-23.3	JAN 2	3241	619	134	15	MAY 7-8	325	107	MAR 3-4	35	30	47	55	3.0	0.8	11	21.9	NE	AUG 11+	4.7	157	99	110	63	6	33	5	67	16	153	6
PUEBLO	19.9	1.9	10.9	37.8	JUL 10+	-25.6	NOV 28	3134	473	283	35	SEP 26-27	622	198	MAR 3-4	43	36	63	76	4.2	0.5	1	28.2	N	FEB 20	4.9	151	102	113	68	7	29	6	59	21	168	7
CONNECTICUT																																				
BRIDGEPORT	19.3	6.3	10.8	32.8	AUG 21	-17.8	JAN 23	3136	431	991	60	OCT 3	693	142	JAN 21-22	78	77	61	68	5.5	2.2	28	25.9	04	AUG 9	6.0	95	120	151	117	7	24	29	3	28	106	1
HARTFORD	16.7	3.9	9.9	35.6	APR 19	-22.8	JAN 19	3496	455	1071	51	JAN 27-28	1031	180	MAR 16	74	75	51	61	3.4	1.4	27	18.8	NW	DEC 13	6.4	78	130	161	131	12	18	23	19	41	139	7
DELAWARE																																				
WILMINGTON	17.2	6.8	11.9	33.3	AUG 22+	-16.1	JAN 19	2869	557	853	58	MAY 1	411	155	MAR 9-10	74	75	52	61	4.2	1.7	28	17.9	31	FEB 2	5.9	113	91	160	100	5	30	17	11	18	111	0
DIST OF COLUMBIA																																				
WASHINGTON DULLES	17.8	4.9	11.1	35.0	AUG 13	-18.3	JAN 19	3040	433	919	67	OCT 8-9	244	163	MAR 9-10	79	81	51	62	3.7	1.3	26	16.5	27	DEC 21	5.7	122	95	149	156	2	29	20	16	16	145	1
WASHINGTON NATIONAL	19.4	7.1	14.4	35.6	JUN 28	-11.7	FEB 2+	2271	863	987	130	SEP 15-16	81	23	FEB 2	69	71	50	55	4.3	1.1	26	22.4	N	JAN 15	5.7	125	85	156	101	0	22	7	36	3	77	2
FLORIDA																																				
APPALACHICOLA U	24.7	13.9	18.9	34.4	AUG 23+	-2.8	JAN 19+	899	1175	1213	93	OCT 7-8	0	0		87	88	64	77	3.1	0.3	9	11.6	NW	DEC 20+	5.7	114	110	142	99	0	76	37	21	0	18	0
DAYTONA BEACH	25.9	15.4	20.7	35.6	JUL 1A	-2.2	JAN 18	508	1427	1329	117	JUN 4-5	0	0		84	85	60	74	3.8	0.4	A	13..	25	FEB 1	5.8	104	116	144	171	.	75	17	30	0	6	0

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA
METRIC UNITS

State and Station	Temperature: Averages: Daily maximum	Daily minimum	Annual	Extremes: Highest	Date	Lowest	Date	Heating degree days	Cooling degree days	Precipitation: Total	Greatest in 24 hours	Date (s)	Snow†: Total	Greatest in 24 hours	Date (s)	Relative humidity: 1:00 am EST	7:00 am EST	1:00 pm EST	7:00 pm EST	Wind: Average speed	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Direction	Date	Average sky cover sunrise to sunset	Number of days: Sunrise to sunset: Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation 25mm or more	Snow 25.4mm or more	Thunderstorms	Heavy fog	Max temp: 32.2 C and above	0 C and below	Min temp: 0 C and below	-17.8 C and below
FLORIDA	C	C	C	C		C		Base 18.3 C	Base 18.3 C	mm	mm		mm	mm		%	%	%	%	m/s	m/s		m/s			Tenths										
FORT MYERS	28.1	16.9	22.5	34.4	SEP 1+	2.2	JAN 19	242	1814	1236	72	MAY 30-31	0	0		86	90	56	71	3.6	0.8	E	16.5	30	DEC 21	5.6	81	184	101	113	0	91	26	59		0	0
JACKSONVILLE	25.1	12.9	19.0	36.1	JUL 16+	-4.4	JAN 18+	905	1211	1292	103	MAY 7-8	0	0		88	90	59	76	3.3	0.1	35	18.8	NW	SEP 3+	5.9	98	127	141	113	1	69	46	48	0	29	0
KEY WEST	27.8	22.7	25.3	33.3	JUL 19+	11.1	JAN 19	29	2617	960	92	APR 6	0	0		77	78	68	73	4.8	2.6	9	23.2	NW	APR 6	5.7	90	156	120	102	0	72	6	28	0	0	0
LAKELAND	27.7	16.3	22.1	36.1	JUL 25+	-1.7	JAN 18	375	1777	1248	99	MAY 15	0	0												5.6	85	169	117	128	1			69	0	4	0
MIAMI	27.4	20.7	24.1	33.9	AUG 8+	4.4	JAN 18	89	2230	1420	94	AUG 18-19	0	0		82	86	64	72	4.4	1.5	8	23.4	19	MAY 23	6.2	58	176	132	126	1	66	4	13	1	0	0
ORLANDO	28.0	15.9	22.0	36.1	JUL 16	-1.1	JAN 16	400	1788	1196	68	MAY 12	0	0		86	88	54	70	3.8	0.4	9	14.3	19	FEB 1	6.0	90	134	142	139	0	67	38	98	0	3	0
PENSACOLA	24.1	13.8	18.9	35.0	JUL 23	-4.4	JAN 9	948	1228	1809	114	OCT 30	0	0		78	81	57	66	3.7	0.3	4	13.4	36	JAN 8	5.4	124	114	128	108	0	72	38	41	1	20	0
TALLAHASSEE	25.7	12.0	18.9	37.8	JUL 14	-9.4	JAN 19	1018	1273	1956	126	NOV 27-28	T	T	DEC 22	87	90	56	68	2.8	0.4	3	14.3	20	NOV 1	5.8	97	136	133	120	0	86	61	72	1	48	0
TAMPA	27.1	16.7	21.7	34.4	JUL 20	-2.2	JAN 19	410	1677	1074	104	MAY 14-15	0	0		81	84	56	68	3.4	0.6	6	15.6	10	AUG 11	6.2	90	115	101	115	0	92	23	34	0	5	0
WEST PALM BEACH	27.6	18.7	23.2	34.4	JUL 16+	2.2	JAN 18	153	1967	1405	139	MAY 28-29	0	0		81	82	59	73	4.2	1.3	9	16.5	27	MAY 23	6.2	57	176	133	120	0	78	9	32	0	0	0
GEORGIA																																					
ATHENS	21.7	9.7	15.7	36.1	JUL 24	-11.1	JAN 9	1697	786	1383	91	MAY 14-15	53	53	JAN 17	76	83	53	60	3.1	0.8	27	17.1	28	AUG 25	5.5	120	117	139	99	1	51	31	24	0	64	0
ATLANTA	21.1	9.0	15.1	34.4	JUL 25	-12.8	JAN 9	1844	697	1167	129	MAR 15-16	T	T	MAR 14 +	74	80	53	58	3.7	0.9	29	21.0	W	FEB 18	5.7	104	111	149	101	0	45	17	14	2	71	0
AUGUSTA	23.9	9.7	16.8	37.8	JUL 25	-11.1	JAN 19	1455	940	1160	77	SEP 14-15	T	T	JAN 17	84	87	50	66	3.1	0.5	26	13.4	31	MAR 9	5.6	130	89	147	114	0	45	34	50	0	65	0
COLUMBUS	23.5	10.8	17.2	36.7	JUL 25	-8.9	JAN 9	1392	1019	1332	86	JUN 3-4	T	T	JAN 3	83	89	53	63	3.1	0.5	35	15.6	36	AUG 30	5.4	127	96	143	116	0	46	19	51	0	56	0
MACON	24.4	10.6	17.5	38.3	JUL 25	-11.1	JAN 19	1337	1071	1177	136	MAY 14-15	T	T	JAN 17	83	89	52	63	3.3	0.5	29	19.2	SW	DEC 4+	5.6	117	103	144	112	0	50	24	68	0	54	0
ROME	21.9	7.8	14.9	36.1	JUL 25+	-13.3	JAN 9	1961	743	1261	83	JUL 4	T	T	DEC 20 +															113	1			39	2	88	0
SAVANNAH	23.8	12.2	18.0	36.1	JUL 16	-6.7	JAN 19	1163	1086	1619	144	MAY 30-1	T	T	JAN 17	82	86	54	67	3.1	0.4	27	18.8	W	MAR 16+	6.2	97	101	168	112	0	61	36	38	0	33	0
HAWAII																																					
HILO	26.9	19.3	23.2	32.8	OCT 2	15.0	FEB 4+	0	1870	2913	145	OCT 21-22	0	0		83	70	83	88	2.9	0.1	18	11.6	E	FEB 15+	7.4	30	129	207	302	1	8	3	2	0	0	0
HONOLULU	28.9	20.8	24.9	32.8	SEP 24+	11.7	FEB 2+	0	2442	328	75	FEB 5-6	0	0		64	52	63	67	5.1	4.1	6	17.0	NE	FEB 15	5.9	71	196	99	105	0	1	0	9	0	0	0
KAHULUI	28.8	19.4	24.1	33.9	AUG 17+	12.8	MAR 12+	0	2161	326	45	JAN 31	0	0		74	56	69		5.8	4.7	5	16.5	E	FEB 16	4.8	145	129	92	96	0	0	0	17	0	0	0
LIHUE	27.2	21.8	24.5	30.6	SEP 25+	13.9	FEB 2	0	2311	834	80	FEB 5-6	0	0		77	67	76	80	5.5	4.2	6	17.0	S	FEB 5	6.3	46	206	114	212	0	2	0	0	0	0	0
IDAHO																																					
BOISE	16.8	3.1	9.9	39.4	JUL 16	-16.1	FEB 5	3316	297	310	44	SEP 11-12	462	94	FEB 29	50	40	63	71	3.8	0.1	4	20.6	NW	MAR 22	5.4	125	104	137	80	10	21	17	34	14	139	0
LEWISTON	17.6	5.6	11.6	37.8	SEP 1+	-12.8	FEB 5	2786	382	256	19	JUN 7-8	84	20	JAN 12 +	60	46		74				24.1		MAY 10+	7.0	75	75	216	90	0			28	7	84	0
POCATELLO	15.8	.8	8.3	36.9	JUL 23	-18.9	NOV 27	3805	207	296	46	OCT 2-3	1074	254	APR 25-26	51	41	59	70	4.2	2.1	23	19.2	SW	JUN 10+	5.8	103	121	142	72	11	12	16	28	31	177	1
ILLINOIS																																					
CAIRO	19.6	9.4	14.5	37.8	JUL 24	-17.2	DEC 31	2177	825	909	148	JUN 15-16	140	71	FEB 2								22.4	SW	JAN 13					92	2			69	12	74	0
CHICAGO O HARE	15.0	3.4	9.2	36.7	JUL 14	-25.0	FEB 2	3709	426	675	70	APR 24-25	582	69	DEC 6 +	71	75	55	56	5.0	1.5	26	17.4	SW	APR 25	5.7	122	99	145	101	9	29	10	16	46	136	13
CHICAGO MIDWAY	14.9	4.3	9.6	37.8	JUL 10	-23.9	FEB 2	3640	503	863	118	JUN 13	917	122	JAN 13	70	75	55	57	5.0	1.3	25	17.9	E	JUN 13+	5.6	123	102	141	110	13	51	5	16	49	129	11
MOLINE	15.6	2.8	9.2	37.2	JUL 14	-24.4	DEC 7+	3755	478	634	57	APR 23-24	536	152	NOV 26-27	71	75	51	54	4.7	1.2	25	29.1	NW	NOV 13	5.2	137	105	124	92	8	30	8	22	45	151	21
PEORIA	15.8	3.2	9.6	36.7	JUL 14	-24.4	JAN 8	3615	444	793	59	JUN 27-28	447	112	JAN 13	77	81	56	59	4.6	0.9	23	19.2	W	MAR 4	5.6	120	102	144	87	6	38	15	14	40	146	15
ROCKFORD	14.2	1.7	7.7	36.1	JUL 14+	-30.0	FEB 2	4187	348	591	64	MAR 4	490	94	NOV 26-27	75	78	53	55	4.6	0.9	26	15.6	SW	APR 25+	5.6	120	97	149	103	6	38	10	12	59	172	28
SPRINGFIELD	17.2	4.4	10.8	37.2	JUL 14	-22.2	DEC 31	3263	567	653	49	MAR 3-4	500	137	DEC 6	76	82	56	59	4.7	1.1	23	21.5	SW	MAR 12	5.5	120	112	134	80	7	38	11	30	30	137	7

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA

METRIC UNITS

YEAR 1976

State and Station	Temperature							Heating degree days	Cooling degree days	Precipitation						Relative humidity				Wind					Average sky cover sunrise to sunset	Number of days																			
	Averages			Extremes								Snow										Fastest mile (1.6 kilometers)					Sunrise to sunset									Max temp			Min temp					
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date	Base 18.3 °C	Base 18.3 °C	Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 am EST	7:00 am EST	1:00 pm EST	7:00 pm EST	Average speed	Resultant speed	Resultant direction	Speed	Direction	Date		Clear, 0 to 3	Partly cloudy, 4 to 7	Cloudy, 8 to 10	Precipitation 2.5mm or more	Snow, 25.4mm or more	Thunderstorms	Heavy fog	32.2 °C and above	0 °C and below	0 °C and below	-17.8 °C and below							
	°C	°C	°C	°C		°C				mm	mm		mm	mm		%	%	%	%							Tenths																			
[illegible]																																													
[illegible]	18.1	2.4	10.3	37.8	7	-17.4	2	3655	615	812	76	23-24 OCT	216	107	26-27 FEB	78	74	56	58	3.4	0.8	4	41.0	1	30.3	5.4	167	111	88	97	2	12	7	25	21	124	4
[illegible]	17.1	4.4	10.8	35.6	7	-15.1	2	3566	617	648	45	1-4 JAN	699	124	5 MAR	78	79	58	61	4.8	2.0	28	47.7	1	32.2	6.4	94	117	154	118	9	31	11	43	44	140	9
[illegible]	16.1	4.0	10.1	34.4	7	-18.0	2	3671	470	854	76	5-6 DEC	345	94	16 NOV	83	84	68	65	4.4	1.3	24	46.5	34	32.2	5.9	110	96	159	97	4	40	14	6	33	145	5
[illegible]	18.1	4.1	11.1	34.4	7	-12.1	2	3586	574	1374	74	2-21 JUL	2784	305	3-4 JUL	81	83	61	65	4.7	1.7	24	47.6	28	32.2	6.8	98	95	173	98	39	46	21	18	43	134	10
[illegible]	18.1	3.4	10.7	39.7	7	-18.4	2	3585	447	748	53	21-22 JUL	93	107	13 JAN	71	76	54	54	4.3	1.8	24	46.1	28	32.2	5.2	124	111	127	97	4	26	10	15	41	140	16
[illegible]	17.1	3.4	10.3	38.3	7	-19.4	2	3514	503	726	76	17-18 DEC	483	267	20-21 FEB	68	71	51	51	4.8	1.6	24	46.8	5	32.2	5.6	124	117	134	95	3	36	5	23	47	142	17
[illegible]	19.4	4.1	11.8	37.4	7	-17.4	2	3430	817	569	43	4 MAY	767	231	20-21 MAR		74	56											94	40					4	63	165	30
[illegible]	17.1	4.1	11.1	37.3	7	-17.1	2	3885	538	364	46	21-22 JUL	422	104	4 FEB	71	81	54	59	4.2	0.1	24				5.3	139	118	108	89	3	32	4	35	44	166	21
[illegible]	18.1	4.1	11.4	37.1	7	-17.1	2	4330	371	547	74	27-28 JUL	427	102	20-21 FEB	71	74	59	59	4.9	2.7	27	44.8	33	32.2	5.7	109	116	140	96	6	35	6	18	46	178	31
[illegible]	17.1	3.1	10.1	37.1	7	-18.1	2	3907	476	443	44	4 FEB	398	97	21 FEB	55	74	49	47	5.5	2.9	28	45.1	15	32.2	4.8	159	95	111	94	6	43	8	61	41	136	8
[illegible]	17.1	3.4	10.4	34.1	7	-18.1	2	3847	395	407	29	1-2 JAN	304	145	21 FEB	59	72	43	41	6.9	3.6	27	48.7		32.2	4.6	164	98	104	89	4	40	14	75	44	131	2
[illegible]	18.7	3.4	11.1	37.1	7	-16.6	2	4,091	491	274	19	2 JAN	714	124	3-4 JAN	45	43	34	35	5.5	3.0	28	49.7	34	32.2	4.8	157	109	119	91	3	29	12	5	27	150	8
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3797	514	567	46	16-17 DEC	262	107	6-7 FEB	75	81	53	59	4.1	1.6	2	41.3	1	32.2	5.1	154	112	114	90	4	41	8	58	23	140	6
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3854	487	544	72	1-2 JAN	48	28	5 FEB	67	75	48	44	4.4	2.9	28	47.2	1	32.2	4.6	173	92	100	78	1	46	6	54	29	127	3
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	457	744	45	14-15 JAN	326	104	6-8 JAN	74	81	57	61	4.1	2.2	28	47.4	28	32.2	5.4	119	98	155	102	5	46	20	18	23	187	3
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	745	76	15-16 DEC	346	74	21 JAN	74	81	74	81	3.4	2.0	21	47.4	28	32.2	5.0	161	110	93	124	7	27	15	3	19	180	3
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	847	76	12-13 DEC	150	41	29 JAN	74	81	73	59	4.1	2.4	24	47.4	28	32.2	5.7	137	118	151	97	3	36	5	14	42	188	0
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	1,284	112	1-2 JAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.7	3.1	8	46.1	28	32.2	5.0	140	103	122	115	5	46	21	87	0	44	0
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	1,115	112	1-2 JAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.4	3.8	5	46.5	28	32.2	5.5	141	102	123	114	5	57	14	72	0	91	0
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	934	124	1-2 JAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.1	1.8	1	45.5	3	32.2	5.8	119	97	154	94	5	66	43	71	0	76	0
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	1,193	112	1-2 JAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.8	3.4	7	46.4	28	32.2	5.8	114	103	148	97	5	54	20	56	0	61	0
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	1,148	76	1-2 JAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.4	3.1	5	44.3	3	32.2	5.6	124	92	150	112	3	55	7	52	0	97	0
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	1,148	76	1-2 JAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.4	3.1	5	44.3	3	32.2	5.6	124	92	150	112	3	55	7	52	0	97	0
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	1,148	76	1-2 JAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.4	3.1	5	44.3	3	32.2	5.6	124	92	150	112	3	55	7	52	0	97	0
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	1,148	76	1-2 JAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.4	3.1	5	44.3	3	32.2	5.6	124	92	150	112	3	55	7	52	0	97	0
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	1,148	76	1-2 JAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.4	3.1	5	44.3	3	32.2	5.6	124	92	150	112	3	55	7	52	0	97	0
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	1,148	76	1-2 JAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.4	3.1	5	44.3	3	32.2	5.6	124	92	150	112	3	55	7	52	0	97	0
[illegible]	17.1	4.1	10.1	34.1	7	-13.1	2	3,448	458	1,148	76	1-2 JAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.4	3.1	5	44.3	3	32.2	5.6	124	92	150	112	3	55	7	52	0	97	0

[illegible] footnotes at end of table

ANNUAL CLIMATOLOGICAL DATA

METRIC UNITS

YEAR 1976

State and Station	Temperature							Heating degree days	Cooling degree days	Precipitation						Relative humidity				Wind						Average sky cover sunrise to sunset	Number of days											
	Averages			Extremes								Snow†										Fastest mile (1.6 kilometers)					Sunrise to sunset						Max temp		Min temp	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date			Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 am EST	7:00 am EST	1:00 pm EST	7:00 pm EST	Average speed	Resultant speed	Resultant direction	Speed	Direction	Date		Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation .25mm or more	Snow ≥ 2.54mm or more	Thunderstorms	Heavy fog	32.2°C and above	0°C and below	0°C and below	-17.8°C and below
	°C	°C	°C	°C		°C		Base 18.3°C	Base 18.3°C	mm	mm		mm	mm		%	%	%	%	m/s	m/s		m/s			Tenths										
ALASKA																																				
BARROW	-13.3	-23.3	-18.3	2.8	SEP 4	-48.3	FEB 2	7776	0	8	5	JUL 31	2517	225	MAR 1-2	83	84	82	71	4.1	1.4	27	15.6	NW	OCT 13	6.6	74	111	181	14	36	32	14	12	86	190	28
DETROIT	4.6	-5.5	1.7	35.1	JUL 14	-19.4	FEB 2	3488	537							67	74	54	56	5.2	1.9	25	15.6	28	MAY 5+						34	7	16	46	122	3
DETROIT METRO	4.0	-.7	1.6	37.0	JUL 14	-17.8	JAN 18	3776	392	734	44	MAY 6	1036	157	MAR 1	76	82	55	61	5.7	2.2	26	21.9	SW	MAR 5	6.2	91	118	157	135	12	29	14	21	51	150	16
FLINT	13.4	.4	6.9	34.4	JUL 14	-31.7	JAN 18	4035	311	817	73	APR 24-25	1651	211	JAN 13	77	80	59	62	4.6	1.9	26	15.6	34	MAR 27+	6.6	76	116	174	133	24	32	11	7	55	152	19
GRAND RAPIDS	14.2	1.9	8.1	34.4	AUG 27+	-25.6	DEC 31	4084	354	776	72	MAY 5-6	1715	130	JAN 13	77	79	57	63	4.2	1.6	24	29.5	SW	MAR 20	6.5	87	102	177	132	26	28	15	21	57	170	12
HOUGHTON LAKE	11.3	-.3	5.5	32.8	JUL 14	-32.8	FEB 2	4818	471	595	55	MAR 4-5	2731	152	FEB 21-22	81	82	60	65	4.0	1.5	27	13.4	25	MAR 5	6.5	86	107	179	147	40	28	21	2	86	193	27
LANSING	13.7	1.4	7.6	35.6	JUL 14	-31.7	JAN 18	4186	309	702	74	JUN 29-30	1699	224	JAN 13	85	86	63	69	4.4	1.8	25	23.2	SW	MAR 30	6.5	79	111	176	138	27	31	19	13	59	170	16
MARQUETTE	9.4	1.7	5.6	34.7	AUG 27+	-32.8	DEC 29	4847	218	617	41	MAY 15-16	4823	389	MAR 12-13								18.8	SW	JAN 18					163	60			9	101	172	13
MUSKEGON	13.4	2.3	7.9	32.8	JUL 14+	-26.1	DEC 31	4006	242	727	60	MAY 1-2	2723	173	DEC 28-29	79	82	62	66	5.0	1.6	26	16.3	25	MAR 5	6.5	100	69	197	151	38	37	5	2	51	153	4
SAULT STE MARIE	0.7	-2.4	3.7	35.1	SEP 8	-31.7	FEB 2	5437	93	653	46	MAR 26-27	4775	183	MAR 12-13	86	86	65	73	4.0	0.9	30	20.1	W	DEC 10	7.0	75	83	208	181	67	19	22	4	111	205	44
MINNESOTA																																				
DULUTH	8.4	-2.4	3.2	35.1	SEP 7	-34.4	JAN 17	5038	151	525	43	JUN 14-15	1704	216	JAN 1-2	71	74	56	54	4.6	0.9	28	18.8	E	MAR 2	5.9	116	85	165	111	20	27	24	4	106	193	59
INTERNATIONAL FALLS	8.7	-4.7	2.0	35.6	SEP 7	-38.9	FEB 2	5098	156	565	49	JUL 18-19	2106	371	MAR 11-12	77	81	58	58	3.8	1.0	27	17.9	33	JUL 19+	6.3	90	110	166	122	18	32	8	7	117	215	86
MINNEAPOLIS	13.8	1.6	7.7	37.9	JUL 13	-30.6	DEC 31	4359	328	419	50	JUN 17-18	1135	211	MAR 4-5	62	67	48	48	4.4	0.7	27	16.5	N	MAR 12+	5.7	116	101	149	97	16	30	4	31	75	158	39
ROCHESTER	13.3	-.3	6.6	38.9	JUL 10	-26.6	DEC 31	4634	356	392	35	APR 17-18	792	150	MAR 4-5	74	77	55	59	5.8	1.4	25	17.0	27	JUL 30+	6.0	110	87	169	94	11	25	15	16	73	183	42
ST CLOUD	12.4	-2.3	5.1	37.2	AUG 18	-36.7	DEC 31	5114	309	379	41	JUN 24	1021	229	JAN 10		80	52	54							5.6	126	92	148	76	13			20	89	196	59
MISSISSIPPI																																				
JACKSON	23.9	11.8	17.9	38.1	AUG 25	-9.4	JAN 9	1391	1081	1458	89	MAY 27	5	5	NOV 28	88	93	59	67	3.0	0.2	13	16.5	NE	AUG 1	5.4	131	92	143	105	0	64	20	61	2	61	0
MERIDIAN	23.4	9.8	16.1	38.1	AUG 24+	-10.0	JAN 9	1565	794	1268	132	MAR 29-30	T	T	NOV 28 +	91	93	55	68	2.6	0.3	25	13.0	17	MAR 20	5.6	121	98	147	101	0	58	40	40	0	73	0
MISSOURI																																				
COLUMBIA REGIONAL	17.9	5.3	11.6	36.7	JUL 24	-24.4	DEC 31	3017	606	607	64	OCT 4-5	579	145	MAR 15-16	72	80	53	55	4.3	0.8	22	20.1	SW	MAR 30+	5.4	130	104	132	72	7	35	14	39	24	116	6
KANSAS CITY	18.1	5.6	12.1	41.1	AUG 10	-23.9	DEC 31	3477	720	671	68	JUN 23-24	328	64	JAN 6-7	72	78	55	54	4.8	0.8	20	22.4	W	DEC 28	4.9	146	108	112	78	8	40	17	45	28	114	6
ST JOSEPH	19.2	4.8	11.8	38.1	AUG 10+	-23.3	DEC 31	3067	696	562	53	SEP 25	406	127	FEB 2			53	54											63	8			44	24	128	9
ST LOUIS	18.8	5.8	12.3	37.2	JUL 23+	-23.3	DEC 31	2858	693	596	53	MAY 30-31	490	122	MAR 15-16	77	86	56	57	4.3	0.9	25	17.9	SW	MAR 12	5.0	143	108	115	80	6	35	9	36	27	120	4
SPRINGFIELD	19.8	5.9	12.8	38.1	JUL 28	-24.1	DEC 31	2585	803	795	87	AUG 14-15	102	30	DEC 6	72	76	51	54	4.1	1.1	19	15.6	S	DEC 9	4.9	155	92	119	80	1	36	12	27	14	107	3
MONTANA																																				
BILLINGS	15.6	2.1	8.8	41.0	JUL 24	-26.1	JAN 7	3735	304	369	31	MAY 14	1224	160	MAR 29-1	46	46	54	61	5.4	2.4	26	21.9	NW	MAR 23+	6.0	98	114	154	88	14	26	13	27	34	156	16
GLASGOW	13.7	-.3	6.7	37.8	AUG 22	-34.4	JAN 8	4451	243	344	64	JUL 1-2	442	69	MAR 1-2	54	47	66	73	4.8	0.5	9	26.8	08	JUL 11	5.9	94	130	142	90	5	36	5	9	61	187	31
GREAT FALLS	15.1	1.8	8.4	37.2	JUL 30	-28.9	MAR 3	3784	210	384	37	JUN 6	1392	254	APR 25-26	47	42	56	64	5.7	3.7	23	21.5	SE	JUL 11	6.7	70	109	187	96	17	29	5	17	31	146	16
HAVRE	15.8	.3	8.1	38.9	AUG 22	-31.7	JAN 7	3975	276	209	17	JUN 21-22	584	142	MAR 11	47	41		68	5.0	1.9	25	21.9	SW	AUG 25	6.1	88	126	152	85	8	29	6	34	34	168	29
HELENA	14.1	.1	7.1	35.0	JUL 30	-28.9	MAR 3	4148	95	256	30	SEP 17-18	739	130	MAR 1	50	41	60	68	3.4	1.7	28	20.1	SW	JUN 30	6.5	81	108	177	86	9	36	5	8	37	185	13
KALISPELL	13.	-.1	6.4	33.3	JUL 28	-23.3	JAN 1	4360	67	377	45	AUG 3-4	1039	97	JAN 7-8	62	53	73	79	2.5	0.5	19	17.0	03	MAR 11	7.0	64	93	209	117	17	24	36	3	40	176	8
MILES CITY	15.5	1.4	8.8	42.2	JUL 24	-32.2	JAN 8	4003	482	274			409			54	49	65	74	5.1	1.0	31								90	5	33	6	46	42	167	21
MISSOULA	14.2	.3	7.3	34.4	JUL 23+	-20.0	MAR 3	4090	88	231	15	JUL 11-12	709	175	FEB 26	63	51	73	83	2.5	0.7	30	21.9	S	AUG 22	6.8	78	84	204	106	10	27	31	8	41	170	2
NEBRASKA																																				
GRAND ISLAND	17.4	3.5	10.6	38.9	AUG 26	-25.0	JAN 7	3412	604	405	51	MAY 21-22	462	175	MAR 4	68	75	49	48	5.5	0.6	23	20.6	18	APR 16	4.8	154	97	115	70	7	34	5	49	30	152	12
LINCOLN	17.8	3.2	10.5	39.4	JUL 6	-26.7	DEC 31	3484	654	455	47	SEP 24-25	378	86	FEB 20-21	71	78	51	50	5.0	0.3	24	24.1	N	MAR 30	5.1	141	91	134	66	5	45	5	53	35	156	18

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Temperature							Heating degree days	Cooling degree days	Precipitation							Relative humidity				Wind					Average sky cover sunrise to sunset	Number of days																	
	Averages			Extremes						Water equivalent																	Sunrise to sunset							Max temp		Min temp								
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date			Total	Greatest in 24 hours	Date	Total	Greatest in 24 hours	Date	Snow, Ice pellets	00Z	07:00 AM EST	13:00 PM EST	19:00 PM EST	Average speed	Resultant speed	Resultant direction	Fastest mile (or kilometer) Speed	Direction	Date		Clear	Partly cloudy	Cloudy	Precipitation .01 inch or more	Snow, Ice pellets .1 inch or more	Thunderstorms	Hail	32 and below	0 and below	32 and above	90 and above	70 and above	Average	Departure from normal	Average	Departure from normal	Heating degree days	Cooling degree days
								Base 18	Base 18	mm	mm		mm	mm		cm	%	%	%	%						Tenths																		
[illegible]																									

ANNUAL CLIMATOLOGICAL DATA
METRIC UNITS

State and Station	Temperature: Averages: Daily maximum	Daily minimum	Annual	Extremes: Highest	Date	Lowest	Date	Heating degree days	Cooling degree days	Precipitation: Total	Greatest in 24 hours	Date (s)	Snowf: Total	Greatest in 24 hours	Date (s)	Relative humidity: 1 00 am EST	700am EST	100pm EST	700pm EST	Wind: Average speed	Resultant speed	Resultant direction	Fastest mile (1 6 kilometers): Speed	Direction	Date	Average sky cover sunrise to sunset	Number of days: Sunrise to sunset: Clear, 0-0 3	Partly cloudy, 0 4-0 7	Cloudy, 0 8-1 0	Precipitation 25mm or more	Snow 25 4mm or more	Thunderstorms	Heavy fog	Max temp: 32 2 C and above	0 1 and below	Min temp: 0 C and below	-17 8 C and below
NORTH CAROLINA	C	C	C	C		C		Base 18 3 C	Base 18 3 C	mm	mm		mm	mm		%	%	%	%	m / s	m / s		m / s			Tenths											
RALEIGH	21.5	8.2	14.8	37.8	JUL 24	-15.0	JAN 19	2031	811	856	70	SEP 10	10	10	JAN 17	76	81	48	60	3.2	0.8	23	14.3	22	MAY 29	5.5	126	113	127	98	1	31	27	41	3	88	0
WILMINGTON	23.4	11.4	17.4	37.2	JUL 15	-8.3	JAN 19	1356	1076	1471	121	JUN 27	T	T	DEC 8 +	85	85	55	74	3.8	0.5	24	17.9	SW	FEB 1	5.9	113	95	156	108	1	43	26	32	0	46	0
NORTH DAKOTA																																					
BISMARCK	14.1	-1.3	6.4	40.6	JUL 24	-33.9	JAN 4	4686	368	284	35	SEP 18	716	155	JAN 31-1	72	79	53	51	4.2	0.8	31	21.9	NW	FEB 2	5.7	109	135	137	82	8	29	1	37	37	198	42
FARGO	11.8	-1.2	5.3	41.1	AUG 18	-33.9	DEC 30	5157	426	225	15	JAN 1-2	1082	163	JAN 1-2	65	73	54	51	5.4	0.4	25	20.4	N	JUN 28	6.0	94	120	150	73	13	26	7	29	99	170	56
WILLISTON	12.9	-1.7	5.6	38.9	AUG 23	-35.0	JAN 8	4889	282	233	28	JUN 23	991	213	JAN 31-1	71	78	57	54	4.6	1.1	29	19.7	NW	FEB 1	6.1	86	120	101	91	12	36	4	49	72	192	62
OHIO																																					
AKRON	14.3	3.2	8.9	31.1	JUL 15	-21.7	DEC 31	3674	236	903	74	JUL 10	1453	206	FEB 5	75	79	61	65	4.6	2.0	24	13.4	25	APR 21+	6.6	87	96	108	149	19	46	20	0	44	148	10
CINCINNATI ABBE DB	17.6	6.1	11.9	35.0	JUL 23	-18.9	DEC 31	2819	504	768	62	AUG 6											16.5	SW	JAN 13					91				11	29	115	2
CLEVELAND	14.6	3.8	9.2	33.3	JUL 11	-23.9	DEC 31	3625	333	884	52	FEB 16-17	1588	137	FEB 5	79	82	64	69	4.7	1.9	25	21.9	SW	FEB 18	7.0	69	91	117	141	15	33	12	4	49	135	9
COLUMBUS	15.3	4.3	9.8	34.4	JUL 15	-20.6	DEC 31	3414	336	809	66	AUG 6-7	582	124	JAN 7-8	75	78	57	59	4.2	1.4	24	22.8	W	DEC 15	6.5	88	94	124	115	9	39	12	9	44	144	2
DAYTON U	16.2	4.1	10.2	34.4	JUL 23+	-21.1	DEC 31	3309	372	651	31	JUN 29-30	523	102	JAN 7-8	76	80	57	62	4.3	1.7	25	20.1	S	JAN 13	6.2	97	109	101	113	8	30	24	7	28	141	4
MANSFIELD	13.7	2.7	8.2	31.7	JUL 15+	-23.3	DEC 31	3888	223	785	37	JUN 18-19	1173	157	FEB 5		84	63	71				17.9	28	FEB 16	6.6	76	107	104	127	16	46	24	1	53	147	14
TOLEDO	14.9	2.1	8.5	36.7	JUL 14	-25.6	FEB 3	3883	333	771	38	SEP 25-26+	1031	117	FEB 5	79	82	56	63	4.4	1.7	24	19.3	SW	MAR 5	6.2	78	117	121	136	15	35	11	13	56	156	13
YOUNGSTOWN	13.9	3.1	8.5	31.1	JUL 11+	-21.1	DEC 31	3819	256	953	93	JUL 11	1346	147	FEB 5	74	76	58	64	4.6	1.9	25	24.3	24	MAR 27	7.0	67	94	115	152	20	29	20	1	57	148	10
OKLAHOMA																																					
OKLAHOMA CITY	22.5	8.3	15.4	39.4	AUG 13	-16.1	JAN 8	1978	946	459	33	MAY 26	15	8	NOV 13-14+	67	75	47	46	4.9	1.0	16	18.3	NE	DEC 30	4.7	159	94	113	64	0	45	9	63	5	85	0
TULSA	21.8	8.3	15.1	38.9	JUL 25	-17.2	JAN 8	2077	936	841	81	APR 19-20	13	13	NOV 14	70	79	51	50	4.6	1.3	19	18.3	SW	MAR 29+	4.7	166	81	119	67	0	39	3	64	6	89	0
OREGON																																					
ASTORIA	14.8	6.6	10.7	27.8	SEP 9	-6.7	FEB 5	2741	13	1243	53	JAN 13-14	T		FEB 29	76	71	82	83	3.9	0.8	23	16.5	19	MAR 24	7.3	54	81	221	163	0	3	5	0	0	34	0
BURNS L	15.6	1.1	7.9	33.9	SEP 1+	-16.7	FEB 6	3904	126	215	16	JAN 7	617	112	JAN 7	55			73				25.0	SW	MAR 31	5.2	138	100	128	77	6			6	15	193	0
EUGENE	17.6	4.8	11.2	35.6	JUL 15	-6.7	FEB 6	2675	128	883	85	JAN 7-8	33	25	MAR 19	74	56	82	88	3.1	0.4	25	14.9	24	MAR 1	7.2	59	92	215	112	1	1	60	15		66	0
MEDFORD	18.3	3.7	11.1	37.8	JUL 15	-10.6	FEB 5	2862	242	313	19	SEP 16	86	53	JAN 3	70	48	73	86	2.1	0.8	31	14.3	14	APR 7	5.9	115	74	177	82	1	8	64	31	1	114	0
PENDLETON	17.6	5.4	11.5	38.3	JUL 25+	-13.9	FEB 5	2766	321	255	17	JAN 4-5	43	25	DEC 23	56	47	65	73	3.8	1.3	26	17.9	27	DEC 8+	6.1	99	99	109	82	4	6	23	23	14	81	0
PORTLAND	16.6	6.6	11.6	33.3	JUL 15	-5.6	NOV 28+	2544	120	678	40	FEB 26-27	T	T	MAY 31 +	73	58	75	84	3.4	0.3	25	17.9	SW	FEB 24	7.1	67	78	221	127	0	3	53	1	0	49	0
SALEM	16.6	4.2	10.4	38.9	JUL 29	-8.3	FEB 6	2914	73	711	50	FEB 24-25	9	8	MAR 1	74	64	81	89	2.7	0.8	21	14.8	16	MAR 24	6.7	84	83	199	127	0	3	54	4	1	77	0
SEXTON SUMMIT R	14.1	4.8	9.4	30.6	AUG 30+	-10.6	FEB 5+	3277	92	466	29	AUG 6	1382	277	MAR 31	67	56	71	74				19.2	21	APR 10					171	14			0	11	93	0
PACIFIC AREA																																					
GUAM TAGUAC R	29.2	22.3	25.7	31.1	OCT 16	15.6	FEB 23	0	2763	4214	686	MAY 21-22	0	0		79	91		80				34.0	NE	MAY 21	4.4	3	26	237	307	0			0	0	0	0
JOHNSTON	27.5	23.4	25.6	30.0	SEP 17	18.9	JAN 5	0	2694	672	53	JAN 9-10	0	0		79	74	78	79	4.1	7.5	8	21.1	E	JAN 7	5.7	113	138	114	141		5	0	0	0	0	0
KWAJALEIN	29.8	24.9	27.4	31.7	JUN 15	21.7	AUG 18+	0	3395	2654	90	APR 25	0	0		83	76	79	83				14.9	7	OCT 12	6.4	9	97	270	254	0	14	0	0	0	0	0
MAJURO	29.4	24.0	26.7	31.7	SEP 27	21.7	APR 9+	0	3109	3683	121	SEP 10-11	0			84	73	80	83	4.4	3.8	W	14.3	E	FEB 7	8.7	14	65	287	276	0			0	0	0	0
PAGO PAGO	29.6	23.4	26.5	32.2	DEC 30+	19.4	SEP 18+	0	3040	2909	170	MAY 15-16	0	0		86	73	81	84	4.5	3.0	S	22.4	S	DEC 1	7.5	14	148	134	242	1	39	0	2	0	0	0
PONAPE R	30.7	23.2	26.9	33.3	OCT 6	19.4	FEB 7	0	3192	6002	337	AUG 3-4	0	0		81	89		78				9.4	NE	JAN 18	8.6	8	78	28	308	0	29	0	54	0	0	0

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA

METRIC UNITS

YEAR 1976

State and Station	Temperature: Averages: Daily maximum	Daily minimum	Annual	Extremes: Highest	Date	Lowest	Date	Heating degree days	Cooling degree days	Precipitation: Total	Greatest in 24 hours	Date (s)	Snow: Total	Greatest in 24 hours	Date (s)	Relative humidity: 0300am EST	0700am EST	0100pm EST	0700pm EST	Wind: Average speed	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Direction	Date	Average sky cover sunrise to sunset	Number of days: Sunrise to sunset: Clear, 0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation 25mm or more	Snow, 25.4mm or more	Thunderstorms	Heavy fog	Max temp: 32.2 C and above	0 C and below	Min temp: 0 C and below	-17.8 C and below
PACIFIC AREA	C	C	C	C		C		Base 18.3 C	Base 18.3 C	mm	mm		mm	mm		%	%	%	%	m/s	m/s		m/s			Tenths										
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	28.4	17.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1440	218	17-18	[illegible]	[illegible]	[illegible]	78	85	[illegible]	78	4.5	4.4	7	21.4	[illegible]	MAY 18	9.6	3	25	338	244	[illegible]	12	[illegible]	4	[illegible]	0	0
LAKE	28.4	20.4	24.4	33.3	FEB 20	14.4	[illegible]	[illegible]	3	1,139	732	71	MAR 12-13	0	[illegible]	86	69	75	84	4.9	4.3	1	21.1	[illegible]	FEB 09	4.6	158	146	52	187	[illegible]	3	[illegible]	25	[illegible]	0	0
[illegible]	31.1	23.1	26.7	34.7	MAY 11	[illegible]	[illegible]	[illegible]	3	1,393	970	126	MAY 11-12	[illegible]	[illegible]	72	68	[illegible]	79	3.8	1.5	4	16.5	[illegible]	SEP 13	8.1	7	226	133	24	[illegible]	15	[illegible]	[illegible]	[illegible]	0	0
PENNSYLVANIA																																					
[illegible]	26.0	14.0	20.3	36.7	JUL 24	-17.8	JAN 31	[illegible]	[illegible]	1013	97	SEP 15	602	188	MAR 9	74	78	53	61	4.2	1.9	29	47.4	34	FEB 2	6.1	94	113	157	124	[illegible]	32	20	11	47	232	1
[illegible]	29.4	16.4	[illegible]	37.8	JUL 24	[illegible]	[illegible]	[illegible]	[illegible]	1119	46	[illegible]	2437	409	[illegible]	8	82	71	74	5.6	2.6	24	45.8	25	MAR 27	7.4	50	92	148	175	35	34	17	[illegible]	54	147	6
HARRISBURG	29.3	17.3	23.3	36.6	JUL 24	-15.0	JAN 31	[illegible]	[illegible]	1151	133	[illegible]	574	191	MAR 9	75	74	58	[illegible]	3.6	1.6	20	42.4	[illegible]	MAR 27	6.6	113	105	149	110	9	28	15	[illegible]	28	113	0
PHILADELPHIA	27.4	18.1	22.7	34.4	JUL 24	-10.4	JAN 31	[illegible]	[illegible]	1015	673	[illegible]	488	178	MAR 9	71	78	51	59	4.5	1.7	28	42.4	[illegible]	MAR 21	6.6	117	91	158	111	6	25	9	25	27	47	0
PITTSBURGH	24.1	11.4	17.8	33.1	JUL 25	-21.7	JAN 31	[illegible]	[illegible]	1013	499	8-9	1144	208	7-8	67	77	52	54	4.2	2.0	27	38.6	25	MAR 27	6.7	76	181	108	145	17	33	11	[illegible]	48	240	8
[illegible]	25.4	13.3	19.4	32.2	JUL 24	-16.8	JAN 31	[illegible]	[illegible]	3233	404	[illegible]	782	49	[illegible]	498	71	[illegible]	8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	132	11	[illegible]	[illegible]	8	42	204	2
READING	26.1	14.3	20.2	33.3	JUL 24	-21.1	JAN 31	[illegible]	[illegible]	1016	334	8-9	978	93	[illegible]	1115	156	59	66	3.8	1.6	26	37.4	[illegible]	MAR 17	6.7	67	117	182	141	13	25	13	3	5	229	4
WILLIAMSPORT	27.4	13.3	20.4	33.3	JUL 25	-18.4	JAN 31	[illegible]	[illegible]	943	375	[illegible]	1024	94	[illegible]	861	119	[illegible]	[illegible]	3.0	1.3	29	48.3	29	MAR 21	6.6	76	117	172	144	14	33	34	5	39	236	6
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	24.1	11.1	17.6	33.3	JUL 24	-17.6	JAN 31	[illegible]	[illegible]	3156	247	9-10	944	72	[illegible]	640	157	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	125	9	[illegible]	[illegible]	2	27	45	1
[illegible]	25.1	12.7	18.9	34.4	JUL 25	-16.1	JAN 31	[illegible]	[illegible]	3494	351	1-31	1177	113	29-31	981	231	21-22	[illegible]	4.5	1.9	27	41.4	31	[illegible]	6.1	101	116	147	129	13	31	23	1	37	183	6
SOUTH CAROLINA																																					
[illegible]	28.1	11.7	17.7	34.4	JUL 26	-8.4	JAN 31	[illegible]	[illegible]	1230	104	1232	147	28-29	1	20	17	MAY 01-02	[illegible]	81	84	53	69	3.8	4.6	23	40.6	27	1	FEB 28	5.6	107	166	107	103	7	42	24	25	[illegible]	46	0
[illegible]	29.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1303	[illegible]	MAY 28-29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	133	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	31.1	14.4	22.8	37.2	JUL 25	-6.6	JAN 31	[illegible]	[illegible]	1485	396	1474	43	15-17	T	T	[illegible]	[illegible]	[illegible]	4.6	4.6	25	41.2	25	[illegible]	5.6	125	94	147	108	[illegible]	43	22	52	[illegible]	84	0
[illegible]	31.1	14.4	22.7	36.1	JUL 25	-11.1	JAN 31	[illegible]	[illegible]	1198	231	1501	48	7-8	T	T	[illegible]	[illegible]	[illegible]	3.7	3.4	28	43.4	[illegible]	FEB 18	5.1	139	135	89	131	[illegible]	48	27	21	1	79	0
SOUTH DAKOTA																																					
[illegible]	29.4	[illegible]	7.4	[illegible]	[illegible]	-43.3	[illegible]	[illegible]	[illegible]	4436	578	2-3	23	23-24	978	178	[illegible]	[illegible]	[illegible]	5.3	4.3	28	48.2	[illegible]	APR 12	5.6	124	[illegible]	142	73	[illegible]	[illegible]	[illegible]	43	84	247	40
[illegible]	29.6	[illegible]	7.3	[illegible]	[illegible]	-43.6	[illegible]	[illegible]	[illegible]	4405	435	27-28	47	23-24	1118	184	4-5	[illegible]	[illegible]	5.2	4.4	21	34.1	[illegible]	FEB 26	5.4	128	[illegible]	138	44	[illegible]	[illegible]	[illegible]	46	81	244	39
[illegible]	29.1	[illegible]	7.2	[illegible]	[illegible]	-43.9	[illegible]	[illegible]	[illegible]	3885	370	3-4	82	14-15	759	241	21-22	[illegible]	[illegible]	4.3	1.6	34	48.3	[illegible]	FEB 12	5.5	123	[illegible]	144	86	13	41	[illegible]	31	84	270	17
[illegible]	29.4	[illegible]	8.3	[illegible]	[illegible]	-41.1	[illegible]	[illegible]	[illegible]	4421	579	29	13	29	911	169	4-5	[illegible]	[illegible]	4.8	4.7	28	48.3	[illegible]	FEB 12	5.4	126	[illegible]	143	49	1	28	12	55	58	279	34
TENNESSEE																																					
[illegible]	31.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	31.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1119	118	1-2	282	76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.5	4.8	27	48.4	6	[illegible]	5.9	107	102	154	114	9	34	34	6	21	211	0
[illegible]	31.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1114	[illegible]	1614	96	27	T	[illegible]	[illegible]	[illegible]	[illegible]	3.6	3.4	30	45.5	31	[illegible]	5.5	128	93	147	114	[illegible]	54	28	22	4	40	0
[illegible]	31.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1874	66	26-27	197	71	2	[illegible]	[illegible]	3.1	2.9	24	38.6	27	[illegible]	5.7	114	103	140	124	3	30	28	17	7	94	0
[illegible]	31.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1541	1.4	[illegible]	93	9	[illegible]	[illegible]	[illegible]	4.2	3.5	21	34.6	31	[illegible]	5.2	152	76	138	102	4	45	7	5	6	98	0
[illegible]	31.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1254	33	[illegible]	169	38	2	[illegible]	[illegible]	3.5	2.9	24	38.6	27	[illegible]	5.3	140	79	146	118	6	36	10	25	11	84	0
[illegible]	31.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1368	[illegible]	[illegible]	188	48	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.6	111	106	143	107	6	[illegible]	[illegible]	1	6	223	0
TEXAS																																					
[illegible]	31.1	18.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	571	98	[illegible]	142	133	[illegible]	[illegible]	[illegible]	5.3	4.9	17	41.4	31	[illegible]	5.2	143	84	133	85	6	42	16	21	8	74	0
[illegible]	31.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	611	65	[illegible]	116	107	8	[illegible]	[illegible]	6.1	5.8	23	41.4	31	[illegible]	4.0	158	97	101	59	4	54	15	44	9	189	4
[illegible]	34.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	31.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA
METRIC UNITS

YEAR 1976

State and Station	Temperature: Averages: Daily maximum	Daily minimum	Annual	Extremes: Highest	Date	Lowest	Date	Heating degree days	Cooling degree days	Precipitation: Total	Greatest in 24 hours	Date (s)	Snow: Total	Greatest in 24 hours	Date (s)	Relative humidity: 1:00 am EST	7:00 am EST	1:00 pm EST	7:00 pm EST	Wind: Average speed	Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Direction	Date	Average sky cover sunrise to sunset	Number of days: Sunrise to sunset: Clear, 0-03	Partly cloudy, 04-07	Cloudy, 08-10	Precipitation 25mm or more	Snow, 25.4mm or more	Thunderstorms	Heavy fog	Max temp: 32.2 C and above	0 C and below	Min temp: 0 C and below	-17.8 C and below
TEXAS	C	C	C	C		C		Base 18.3 C	Base 18.3 C	mm	mm		mm	mm		%	%	%	%	m/s	m/s		m/s			Tenths										
CORPUS CHRISTI	28.6	17.1	22.8	37.0	AUG 9+	-3.3	JAN 8	577	1716	1001	115	JUL 13-14	T	T	NOV 28	86	90	63	69	5.1	2.3	11	18.3	N	APR 29	6.3	78	129	159	85	6	26	21	89	0	8	0
DALLAS FT WORTH	24.1	11.9	17.9	38.9	AUG 9+	-11.7	JAN 8	1339	1651	905	113	AUG 31	127	122	NOV 13-14	70	79	54	50	3.9	0.9	19	16.5	19	MAR 4	5.2	143	96	127	85	1	47	7	88	2	41	0
DEL RIO	29.9	14.3	19.7	37.2	JUL 8	-7.2	JAN 8	901	1437	649	90	JUL 16-17	T	T	NOV 28 +	68	84	57	47	4.2	2.2	11	15.6	31	SEP 26	5.6	111	101	154	75	6	46	13	94	0	22	0
EL PASO	24.5	9.1	16.3	40.6	JUN 22	-17.2	NOV 29	1652	944	258	38	JUL 15	399	170	NOV 27-28	37	29	30	62	3.5	0.4	21	18.8	29	FEB 20	4.0	174	116	76	57	5	38	16	88	2	74	0
GALVESTON	22.7	17.3	20.0	33.9	AUG 7+	-4.4	JAN 8	748	1416	1068	88	JUL 8-9	0	0		81	84	71	75				16.1	SE	MAY 26+					94	0			6	0	4	0
HOUSTON INTERCON	25.1	12.4	18.8	37.8	AUG 7	-7.2	NOV 30+	1035	1236	1387	207	APR 18	T	T	NOV 28	88	91	59	67	3.5	0.8	11	13.4	14	APR 15	6.0	104	104	158	101	0	51	25	74	0	35	0
LUBBOCK	22.6	7.4	15.0	37.9	JUN 22+	-17.2	NOV 29	1964	790	511	59	JUN 5	424	137	MAR 12-13	66	76	44	38	4.9	1.2	18	21.5	24	MAR 11	4.4	170	99	97	59	6	55	14	44	5	101	0
MIDLAND	24.2	9.1	16.7	37.8	AUG 5+	-11.1	JAN 8	1496	936	345	38	JUL 11-12	137	109	NOV 12-13	63	75	41	37	5.1	1.5	16	17.9	27	JUN 5+	4.7	150	109	107	56	2	47	17	64	2	64	0
PORT ARTHUR	24.9	23.4	19.2	36.1	AUG 7	-7.2	JAN 8	967	1317	1246	103	JUN 31-1	T	T	NOV 28 +		94	64	73	4.2	0.8	13	17.9	E	OCT 29	6.0	101	110	155	106	0	56	32	72	0	22	0
SAN ANGELO	23.8	11.6	17.2	36.7	AUG 10+	-11.7	JAN 8	1415	1031	554	45	OCT 28-29	76	51	NOV 13	69	81	51	46	4.5	1.3	17	23.2	28	APR 15	5.4	129	98	139	65	2	48	9	59	2	56	0
SAN ANTONIO	24.9	13.2	19.1	35.5	AUG 10+	-8.3	JAN 8	998	1324	994	94	MAY 6-7	T	T	DEC 31 +	78	84	58	54	4.2	1.1	11	19.2	NW	APR 7	6.0	99	120	147	95	0	49	19	66	0	32	0
VICTORIA	25.7	14.6	20.1	36.7	AUG 9	-7.2	JAN 8	786	1493	1099	45	OCT 15-16	5	5	NOV 28	87	91	61	66	4.3	1.3	11	24.1	N	SEP 26	6.5	84	111	171	110	6	55	25	74	5	14	0
ACO	24.9	12.2	18.6	40.6	AUG 5	-10.6	JAN 8	1252	1393	1018	92	JUL 3-4	20	20	NOV 12-13	76	86	57	57	4.3	1.3	15	17.0	13	JUL 15	5.9	120	88	158	96	0	53	10	92	0	47	0
WICHITA FALLS	24.2	9.5	16.8	41.7	AUG 10+	-13.3	JAN 6	1691	1145	854	146	SEP 13	94	94	NOV 13-14	73	83	49	49	5.3	1.4	17	18.8	14	APR 15	4.9	154	85	127	68	1	50	9	86	5	73	0
UTAH																																						
MILFORD	28.6	4.7	8.9	38.9	JUL 10	-25.6	MAR 5	3671	284	203	22	OCT 1-2	1189	201	FEB 5-6								25.5	SW	JUN 10	4.2	181	87	98	61	17			44	14	197	12
SALT LAKE CITY	18.6	3.7	10.9	38.4	JUL 11	-18.9	JAN 1	3202	504	313	41	APR 25	1214	173	MAR 11 +	45	44	63	67	3.9	0.8	17	21.9	NW	APR 25	5.4	127	111	128	73	18	38	17	45	19	142	1
VERMONT																																						
BURLINGTON	21.8	1.2	6.9	34.4	JUL 6	-31.1	JAN 19	4551	268	1018	41	MAY 11-12	2390	208	JAN 27-28	75	78	63	66	4.2	1.1	22	16.5	S	MAR 27	7.6	45	80	241	184	27	24	16	5	72	158	34
VIRGINIA																																						
LYNCHBURG	19.1	5.5	12.4	34.4	JUL 24+	-16.7	JAN 19	2493	516	1136	94	OCT 8-9	117	71	DEC 8		76	48	59				15.2	S	MAR 21	5.3	132	99	135	103	2			19	7	104	0
NORFOLK	21.8	9.9	15.4	35.0	JUL 29+	-8.9	JAN 18+	1889	866	822	58	JUL 29-30	25	25	DEC 8	73	73	50	61	4.7	0.8	26	15.6	28	DEC 7+	5.4	129	93	144	100	1	33	6	35	4	72	0
RICHMOND	21.4	7.1	14.3	37.8	JUL 15	-15.0	JAN 19	2209	770	883	55	SEP 15-16	99	43	DEC 8	79	82	49	62	3.3	0.7	25	15.2	N	MAR 13	5.8	110	101	155	103	3	33	15	55	5	112	0
ROANOKE	19.3	5.9	12.6	35.0	JUL 24+	-15.6	JAN 19	2520	479	1016	100	MAY 29-30	279	137	DEC 8	73	77	50	57	3.9	1.6	29	17.4	25	MAR 13	5.7	115	111	140	103	3	27	18	26	5	107	0
WALLOPS ISLAND	17.4	8.7	13.1	33.9	JUL 24	-11.1	JAN 19	2405	530	995	93	AUG 9	185	81	DEC 8			67					30.0	WNW	JUL 12					100	2			3	7	84	0
WASHINGTON																																						
OLYMPIA	15.6	3.4	9.3	30.0	JUL 23	-10.6	FEB 5	3255	8	1006	55	JAN 13-14	198	94	FEB 28	79	66	87	92	3.0	1.3	20	14.3	27	FEB 17	7.8	36	94	236	162	3	3	114	0	0	101	0
QUILLAYUTE	13.9	4.7	9.3	27.2	SEP 9	-6.7	FEB 6	3229	0	2204	99	FEB 11-12	569	165	FEB 24-25	82	74	90	92	2.5	0.7	21	12.5	SW	FEB 25+	7.8	45	68	253	209	6	1	54	0	0	69	0
SEATTLE	16.3	7.8	11.6	29.4	APR 30	-3.9	FEB 5	2474	41	706	26	MAR 23-24	T	T	MAR 1								22.4		MAR 24+					145	0			0	0	16	0
SEATTLE-TACOMA	15.5	7.3	11.4	30.6	SEP 20+	-4.4	MAR 4+	2568	72	678	34	JAN 13-14	18	8	FEB 28	75	64	77	84	3.6	0.8	19	17.0	SW	MAR 24+	7.4	51	84	231	131	0	2	56	0	0	30	0
SPOKANE	13.9	2.8	8.4	35.0	JUL 17	-15.0	FEB 5	3755	163	285	20	FEB 13-14	785	170	JAN 3+	65	51	69	79	4.0	1.5	19	19.7	SW	MAR 24	6.9	70	81	215	101	10	13	55	11	40	151	0
STAMPEDE PASS R	7.9	1.1	4.5	27.8	AUG 31	-12.2	MAR 3	5007	8	2123	90	JAN 14-15	9187	478	JAN 13-14	75	72		84							7.3	63	69	234	191	69			0	66	182	0
WALLA WALLA C	17.5	6.4	12.0	38.3	JUL 16	-10.0	FEB 5	2652	388	315	28	NOV 31-1	76	46	DEC 23								17.0	SW	MAR 24	6.4	91	96	179	92	1			24	16	71	0

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA

METRIC UNITS

| State and Station | Temperature | | | | | | | Heating degree days | Cooling degree days | Precipitation | | | | | | Relative humidity | | | | Wind | | | | | Average sky cover sunrise to sunset | Number of days | | | | | | |

NORMALS, MEANS AND EXTREMES

State and Station	Elevation Ground (Meters)	Temperature (°C)								Normal Heating Degree Days (1941-1970)		Precipitation (Millimeters)										Relative Humidity (Percent)				Wind Speed (m.p.s.)			Sunshine (% of Possible)		Annual Mean Number of Days									Temperature		
		Normal (1941-1970)				Extremes						Normal (1941-1970)		Extremes			Snow @																					Max	Min
		January		July													Mean Total	Extreme	January		July																				
		Daily Maximum	Daily Minimum	Daily Maximum	Daily Minimum	Annual	Length (Yrs)	Record Highest	Record Lowest	January	Seasonal	Wettest Month	Driest Month	Annual	Wettest Month	Driest Month	Maximum In 24 Hours	January	Seasonal	Maximum In 24 Hours	7:00 a.m. EST	1:00 p.m. EST	7:00 p.m. EST	7:00 a.m. EST	1:00 p.m. EST	7:00 p.m. EST	Mean Speed		Fastest Mile (1.6 Kilometers)	January	July	Sunrise to Sunset			Precipitation 25mm or More	Snow, Sleet, Hail 25.4mm or More	Thunderstorms	Heavy Fog			
																															Clear	Partly Cloudy	Cloudy					32.2°C	0°C	-17.8°C
ALABAMA							93	44.4	-32.8							9	516																								
BIRMINGHAM	189	12.4	1.2	32.4	20.8	16.4	33	41.1	-20.0	363	1580	157	66	1352	449	T	179	13	30	213	81	63	66	89	62	67	3.8	2.5	29.1	42	59	99	111	155	118	*	58	9	39	60	*
HUNTSVILLE	190	10.3	-0.4	32.3	20.4	16.0	9	38.3	-16.1	415	1834	147	65	1325	375	20	196	36	66	91	84	68	72	89	61	66	4.1	2.6	20.6			106	101	158	121	1	58	23	38	65	0
MOBILE	64	16.2	5.2	32.5	22.6	19.7	35	40.0	-13.3	251	935	225	65	1701	490	1	339	T	10	91	82	63	71	89	60	71	4.8	3.1	28.2			100	117	148	124	*	80	39	81	19	0
MONTGOMERY	59	14.4	2.8	32.5	21.9	18.2	32	40.6	-15.0	309	1260	153	57	1266	542	1	224	T	5	79	82	62	66	91	62	68	3.5	2.6	32.2	48	63	107	109	149	109	*	62	23	66	39	0
ALASKA							93	37.8	-62.2							9	359																						B		
ANCHORAGE	35	-6.7	-15.8	18.7	10.1	1.7	23	29.4	-36.7	916	6061	60	14	374	138	T	52	277	1781	450	70	71	71	80	74	61	2.6	3.2	27.3	42	45	64	67	234	113	21	1	26	121	92	41
ANNETTE	34	3.3	-1.7	17.8	10.9	7.6	29	32.2	-17.2	543	3918	453	128	2903	886	14	193	409	1519	361	77	78	74	87	77	68	5.4	3.6	26.8			41	61	263	225	18	1	15	23	83	0
BARROW X	9	-22.2	-29.6	6.8	-0.6	-12.6	56	25.6	-48.9	1373	11257	26	4	124	71	2	25	56	726	381	66	76	68	94	91	87	5.0	5.1	25.9			60	53	185	75	8	*	65	*324	170
BARTER ISLAND V	12	-22.5	-29.9	7.5	1.4	-12.2	27	25.6	-50.6	1381	11107	33	6	179	125	T	57	137	1125	432	69	69	69	93	89	86	6.6	4.7	36.2			53	68	192	91	13	*	76	*313	169
BETHEL	38	-10.9	-19.0	16.6	8.6	-1.8	18	30.0	-43.3	1032	7334	101	11	402	148	1	51	140	1232	208	76	75	75	92	86	66	6.2	5.0	27.7			65	61	239	136	17	2	57	1228	82
BETTLES	196	-20.7	-29.5	20.1	8.6	-5.9	26	33.3	-56.7	1347	8846	70	16	360	150	2	49	300	1941	551	67	64	66	87	68	52	2.6	3.0	17.9			87	93	185	104	25	5	7	352	47	139
BIG DELTA	386	-16.4	-24.6	20.4	10.0	-2.5	35	33.3	-52.8	1204	7609	63	7	291	157	T	54	150	1029	254	70	71	71	79	74	59	4.8	2.7	33.1			60	91	214	92	15	3	10	362	24	99
COLD BAY	29	0.3	-4.6	12.4	7.6	3.3	32	25.6	-25.0	634	5480	109	39	844	253	1	124	226	1410	290	85	85	82	92	90	81	8.0	7.0	32.6			11	47	307	212	18	*	26	*164	2
FAIRBANKS	133	-19.0	-29.8	22.1	9.8	-3.5	25	35.6	-52.2	1324	7969	56	8	285	157	T	87	267	1742	511	67	67	67	88	68	50	1.3	2.9	17.9			68	85	212	102	22	5	21	532	241	122
GULKANA	479	-16.7	-26.9	20.1	7.6	-2.9	31	32.8	-53.9	1245	7743	47	6	282	262	2	85	180	1191	305	67	68	64	87	68	48	2.3	3.7	23.2			68	88	209	87	17	5	18	302	38	108
HOMER	19	-2.2	-9.6	15.0	6.9	2.5	33	26.7	-29.4	751	5757	86	23	586	218	2	77	272	1549	622	74	75	71	92	79	69	3.4	2.6	17.9			67	72	226	143	26	*	9	219	5	13
ILIAMNA 1969	57						27	32.8	-43.9							T	67	277	1636	399	73	74	72	87	79	64	6.6	3.7				81	68	216	137	22	0	12	101	96	45
JUNEAU	4	-1.6	-7.9	17.6	8.7	4.6	33	32.2	-30.0	715	5003	199	74	1389	387	7	118	665	2781	787	79	79	76	90	81	79	3.8	3.4	25.9	32	31	44	39	282	221	30	*	22	191	51	11
KING SALMON	15	-6.1	-14.6	16.9	8.0	0.7	34	31.1	-43.3	889	6434	88	23	502	185	2	51	188	1163	241	71	72	70	86	80	62	4.6	4.5	31.7			55	68	242	150	16	1	34	112	207	59
KODIAK	4	1.4	-3.2	15.1	9.5	4.8	28	30.0	-24.4	596	4922	160	90	1440	376	5	113	516	2426	452	79	78	76	88	82	78	5.5	3.0	24.6			63	72	230	188	27	*	16	61	46	3
KOTZEBUE	3	-16.0	-23.7	14.8	8.4	-6.2	34	29.4	-46.7	1183	8910	57	7	223	132	T	45	152	1204	254	71	71	70	87	84	77	6.5	5.8	41.6			93	72	200	108	16	*	19	42	52	121
MC GRATH	105	-17.5	-27.9	19.8	9.3	-3.8	34	32.2	-55.0	1273	8048	83	17	425	159	T	65	361	2278	386	70	69	69	85	74	56	1.3	2.6	33.5			68	67	230	133	28	7	14	312	311	116
NOME	4	-10.3	-18.7	13.2	6.9	-3.6	30	30.0	-43.3	1016	7958	91	18	418	199	T	76	236	1372	229	72	71	71	82	76	71	5.2	4.5	24.6	40	34	90	65	210	125	17	*	24	62	49	91
ST. PAUL ISLAND	7	-1.1	-5.6	9.7	5.6	1.4	59	17.8	-32.2	670	6177	87	28	623	237	2	49	323	1501	351	86	86	85	96	96	91	9.3	5.8	36.7			21	63	281	204	19	*	57	01	93	6
SHEMYA 1972	37	1.3	-1.7	9.3	6.3	3.5	27	17.2	-13.9	575	5408	84	38	716	221	4	134	290	1448	389	82	82	82	95	96	92	9.6	6.1	40.2			5	62	298	212	19	*	82	01	29	0
SUMMIT 1976	731	-13.4	-20.4	15.7	6.6	-3.6	35	31.7	-42.8	1092	7981	84	17	510	171	T	71	361	3053	711	66	68	69	89	78	62	6.8	3.5	21.5			68	70	227	138	41	5	12	92	51	86
TALKEETNA	105	-7.2	-18.0	19.7	9.0	0.4	37	32.8	-44.4	958	6504	124	28	727	303	T	79	460	2703	914	68	69	62	89	76	60	2.8	1.7	17.8			75	77	213	131	34	4	4	322	88	68
UNALAKLEET	5	-12.1	-19.7	15.8	8.6	-3.1	27	30.6	-45.6	1061	7792	99	10	360	205	T	39	135	1029	356	66	66	64	87	80	73	8.0	4.8	25.0			86	69	210	105	13	2	15	62	36	83
VALDEZ	7	-3.9	-11.9	16.2	7.5	1.2	5	26.7	-28.9	813	5858	197	69	1506	523	T		1501	7775			74	73		83	71			18.3						176	56			71	82	6
YAKUTAT	9	-0.4	-8.3	15.2	8.6	3.8	30	30.0	-31.1	703	5296	496	144	3364	1115	13	198	1107	5862	823	79	79	76	97	86	79	3.5	3.1	33.5			41	47	277	231	52	2	31	41	84	19
ARIZONA							82	52.8	-40.0							0	290																								
FLAGSTAFF	2135	5.2	-9.8	27.1	10.2	7.4	27	36.1	-30.0	639	4067	67	14	490	250	0	87	391	2271	693	73	51	48	70	34	40	3.5	2.8	17.9	75	75	170	96	99	76	21	50	11	32	13	9
PHOENIX	339	18.2	3.1	40.4	25.3	21.3	39	47.8	-8.3	238	862	31	3	179	141	0	78	T	T	15	65	43	29	46	28	20	2.3	3.2	38.4	78	85	214	81	70	34	0	23	2	164	13	0
TUCSON	788	17.5	3.4	36.8	23.4	19.9	36	43.9	-8.9	246	973	60	4	281	201	0	100	8	38	173	61	39	32	58	33	29	3.5	3.7	31.7	82	78	198	89	78	50	1	40	1	139	21	0
WINSLOW	1492	7.6	-6.9	34.2	17.2	12.9	45	42.8	-27.8	558	2629	38	7	186	142	0	56	64	277	432	78	41	50	58	30	26	3.2	4.0	28.2			179	97	89	53	4	36	4	73	142	5
YUMA	59	19.7	6.3	41.1	27.4	23.2	26	48.3	-4.4	171	558	11	0	68	68	0	61	0	T	T	55	37	26	50	33	23	3.3	4.2	26.8	85	89	246	70	49	15	0	7	1	167	2	0
ARKANSAS							86	48.9	-33.9							0	305																								
FORT SMITH	136	9.9	-2.2	34.3	21.4	16.3	31	43.9	-22.8	448	1853	139	60	1074	356	T	181	43	140	180	80	59	61	88	54	52	3.6	2.8	25.9	49	71	124	96	145	96	2	57	15	65	80	*
LITTLE ROCK	78	10.1	-1.7	33.7	21.2	16.1	35	42.2	-20.6	439	1863	135	76	1232	367	T	202	53	130	287	82	62	65	88	58	60	4.0	3.1	29.1	46	71	120	100	145	104	2	57	16	70	63	*
TEXARKANA 1968	119	12.7	1.9	34.1	22.2	17.9	3	38.3	-12.8	368	1407	135	69	1249	423	T	166	38	69	191	79	62	62	90	60	62	3.7	2.8				126	95	144	98	1	62	18	64	44	0
CALIFORNIA							92	56.7	-42.8							0	663																								
BAKERSFIELD	145	14.2	3.3	37.3	20.4	18.3	39	46.1	-6.7	302	1214	26	T	145	117	0	43	T	T	38	83	74	60	48	32	20	2.3	3.2	19.7			202	79	84	36	*	3	2	110	11	0
BISHOP	1252	12.9	-6.4	36.4	13.2	13.3	29	42.8	-21.7	481	2396	30	2	145	227	0	92	99	221	457	48	34	19	14		33.5						203	89	73	29	2	13	*	95	144	*
BLUE CANYON M	1609	6.1	-1.2	25.3	14.8	10.1	33	35.0	-16.1	493	3169	347	3	1717	1146	2	237	1194	6078	978	42	59	45	40	33	29	4.4	3.1	34.0			175	64	126	89	40	12	68	1	101	0
EUREKA U	13	11.9	5.1	15.8	11.2	11.2	66	29.4	-6.1	305	2599	188	4	1010	421	0	148	5	5	76							3.1	3.0	25.0	42	52	79	97	189	117	*	5	49	0	5	0
FRESNO	100	12.7	2.1	36.8	17.2	16.8	27	43.9	-7.2	339	1472	47	0	260	217	0	66	T	T	389	84	67	64	39	23	23	2.4	3.2	19.2	51	96	200	71	94	44	*	6	40	107	29	0
LONG BEACH	8	18.4	6.2	28.2	16.4	17.4	24	43.9	-3.9	188	892	57	0	260	285	0	174	T	T	T	72	56	50	81	41	53	2.5	3.0	19.7			155	125	85	30	0	4	53	22	1	0
LOS ANGELES	30	17.5	7.4	23.8	16.7	16.5	41	43.3	-5.0	184	1010	64	T	294	281	0	157	T	T	168	53	58	66	84	68	43	3.0	3.4	27.7			143	115	107	35	0	3	4	44	5	*
LOS ANGELES U	82	19.2	8.2	28.3	17.5	18.2	36	43.3	-2.2	149	692	76	0	357	379	0	155	T	T	86	35	15	08	45	45	33	3.0	2.4	21.9	69	82	185	106	74	34	0	6	17	20	*	0
MT SHASTA R	1077	5.4	-3.7	29.4	10.3	9.8	34	39.4	-20.6	541	3272	109	8	952	447	0	177	851	2830	950	79	75	69	96	84	02	9					163	85	117	90	21	13	7	21	136	*
OAKLAND	2	12.5	5.9	20.9	13.6	14.1	46	41.7	-5.0	282	1616	102	T	475	287	0	138	T	T	258	37	71	87	76	68	3.0	4.2	21.9			148	112	105	63	*	2	16	2	1	0
RED BLUFF	104	12.0	2.6	36.7	19.2	7.1	32	48.3	-6.7	341	1493	114	1	560	289	0	102	33	64	251	80	72	59	50	30	18	4.1	3.6	30.4	54	96	177	59	119	70	1	10	18	99	22	0
SACRAMENTO	5	11.7	2.8	33.8	14.2	15.7	26	46.1	-6.7	343	1579	95	T	437	321	0	142	T	T	519	90	86	70	76	47	28	3.5	4.1	31.3	47	97	193	72	100	57	*	5	35	77	17	0
SANDBERG R	1377	8.0	1.1	29.5	17.2	12.8	42	38.9	-16.1	427	2459	62	1	304	289	0	174	218	711	978	51	56	52	42	26	29	7.6	5.7	34.4			208	79	78	40	7	4	79	20	59	0

NORMALS, MEANS AND EXTREMES

| State and Station | Elevation Ground (Meters) | Temperature (°C) | | | | | | | | Normal Heating Degree Days (1941-1970) | | Precipitation (Millimeters) | | | | | | | | Relative Humidity (Percent) | | | | Wind Speed (m.p.s.) | | | Sunshine (% of Possible) | | Annual Mean Number of Days | | | | | | | |

NORMALS, MEANS AND EXTREMES

| State and Station | Elevation Ground (Meters) | Temperature (°C) | | | | | | | | Normal Heating Degree Days (1941-1970) | Precipitation (Millimeters) | | | | | | | |

NORMALS, MEANS AND EXTREMES

State and Station	Elevation Ground (Meters)	Temperature (°C) Normals 1951-1980 January Daily Maximum	January Daily Minimum	July Daily Maximum	July Daily Minimum	Annual	Extremes Length (Yrs)	Record Highest	Record Lowest	Normal Heating Degree Days (Base 18°C) January	Seasonal	Precipitation (Millimeters) Normals Wettest Month	Driest Month	Annual	Extremes Wettest Month	Driest Month	Maximum In 24 Hours	Snowfall Mean Total January	Seasonal	Extreme Maximum In 24 Hours	Relative Humidity (Percent) January 1:00 pm EST	January 7:00 pm EST	July 1:00 pm EST	July 7:00 pm EST	Wind Speed (mi/sec) Mean Speed January	Mean Speed July	Fastest Mile (16 Kilometers)	Sunshine (Hours) January	July	Annual Mean Number of Days Sunrise to Sunset	Clear	Partly Cloudy	Cloudy	Precipitation .25mm or More	Snow, Sleet, Hail .25.4mm or More	Thunderstorms	Heavy Fog	Temperature Max 32.2°C	Min 0°C	Min 17.8°C
MICHIGAN																																							
[illegible]		-0.9	-6.[illegible]	18.5	[illegible]	[illegible]	[illegible]	[illegible]	-28.[illegible]	7[illegible]	3[illegible]	87	35	8[illegible]	2[illegible]	[illegible]	83	[illegible]	[illegible]	38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		-3.4	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-30.[illegible]	[illegible]	[illegible]	85	3	7[illegible]	182	[illegible]	66	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		-4.[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-31.7	7[illegible]	3[illegible]	88	41	7[illegible]	240	[illegible]	110	28[illegible]	[illegible]	518	[illegible]	[illegible]	[illegible]	[illegible]	5.5	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		-4.[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-29.[illegible]	9[illegible]	4[illegible]	89	39	7[illegible]	259	[illegible]	118	54[illegible]	2[illegible]	40[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		-4.[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-30.[illegible]	8[illegible]	3[illegible]	86	43	8[illegible]	251	[illegible]	94	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.7	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		-5.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-33.3	8[illegible]	5[illegible]	99	38	[illegible]	241	[illegible]	15[illegible]	66[illegible]	2[illegible]	36[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MINNESOTA																																							
DULUTH		-15.[illegible]	-2.[illegible]	24.7	12.6	3.7	3[illegible]	36.[illegible]	-39.[illegible]	9[illegible]	5[illegible]	73	52	7[illegible]	27	[illegible]	103	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.6	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
INTERNATIONAL FALLS		-19.[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	101	18	65[illegible]	280	[illegible]	124	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		-6.[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-32.[illegible]	9[illegible]	5[illegible]	104	45	8[illegible]	259	[illegible]	105	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.6	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		-5.[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-35.[illegible]	9[illegible]	5[illegible]	107	47	7[illegible]	212	[illegible]	83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.3	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		-7.[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-35.[illegible]	9[illegible]	5[illegible]	94[illegible]	40[illegible]	8[illegible]	227	[illegible]	117	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.7	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MISSISSIPPI																																							
JACKSON		14.[illegible]	[illegible]	33.7	21.4	[illegible]	1[illegible]	[illegible]	-13.[illegible]	3[illegible]	1[illegible]	143	55	1249	384	[illegible]	173	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	2.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MERIDIAN		14.[illegible]	[illegible]	33.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-17.[illegible]	3[illegible]	1[illegible]	1[illegible]	5[illegible]	1310	4.7	[illegible]	207	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MISSOURI																																							
[illegible]		4.[illegible]	-[illegible]	32.1	[illegible]	[illegible]	[illegible]	[illegible]	-7.[illegible]	[illegible]	[illegible]	598	28[illegible]	[illegible]	1[illegible]	4[illegible]	939	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.[illegible]	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		2.3	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-7.[illegible]	[illegible]	[illegible]	61[illegible]	28[illegible]	[illegible]	1[illegible]	4[illegible]	956	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		2.[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	29[illegible]	[illegible]	[illegible]	[illegible]	962	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.9	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		4.[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	67[illegible]	24[illegible]	7	1[illegible]	4[illegible]	889	30[illegible]	[illegible]	155	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-31.[illegible]	[illegible]	[illegible]	96[illegible]	3[illegible]	[illegible]	1[illegible]	4[illegible]	947	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		4.[illegible]	-[illegible]	33.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	9[illegible]	4[illegible]	112	47	9[illegible]	241	[illegible]	84	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-23.[illegible]	[illegible]	[illegible]	1[illegible]	4[illegible]	[illegible]	1[illegible]	[illegible]	174	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.[illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTANA																																							
BILLINGS		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	74[illegible]	[illegible]	6[illegible]	19[illegible]	[illegible]	72[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BOZEMAN		-7.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	9[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	101	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GREAT FALLS		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	81	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
HAVRE		-5.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	4[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	59	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
HELENA		-2.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	9[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	52	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
KALISPELL		-2.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-26.[illegible]	[illegible]	[illegible]	70	[illegible]	[illegible]	[illegible]	[illegible]	60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.[illegible]	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MILES CITY		-3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	8[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	69	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MISSOULA		-1.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	7[illegible]	4[illegible]	[illegible]	[illegible]	[illegible]	46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.4	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NEBRASKA																																							
NORTH PLATTE		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	7[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	137	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
OMAHA		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-26.[illegible]	[illegible]	[illegible]	78[illegible]	3[illegible]	[illegible]	[illegible]	[illegible]	5[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	8[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NORTH PLATTE		-12.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-32.[illegible]	[illegible]	[illegible]	70[illegible]	38[illegible]	[illegible]	[illegible]	[illegible]	81[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
OMAHA		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SCOTTSBLUFF		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SIDNEY		3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3[illegible]	[illegible]	-25.[illegible]	[illegible]	[illegible]	6[illegible]	3[illegible]	[illegible]	[illegible]	[illegible]	9[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
VALENTINE		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	7[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	86	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NEVADA																																							
ELKO		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	7[illegible]	4[illegible]	[illegible]	[illegible]	[illegible]	105	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ELY		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-33.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LAS VEGAS		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	66	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
RENO		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NEW HAMPSHIRE																																							
CONCORD		-9.[illegible]	[illegible]	28.[illegible]	13.[illegible]	[illegible]	[illegible]	[illegible]	-38.[illegible]	[illegible]	[illegible]	1[illegible]	62	9[illegible]	157	[illegible]	114	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MT WASHINGTON OBS		-9.[illegible]	[illegible]	12.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-48.[illegible]	[illegible]	[illegible]	19[illegible]	13[illegible]	19[illegible]	[illegible]	[illegible]	264	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NEW JERSEY																																							
ATLANTIC CITY		5.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-22.[illegible]	[illegible]	[illegible]	55[illegible]	27[illegible]	[illegible]	[illegible]	[illegible]	376	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NEWARK		3.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-21.[illegible]	[illegible]	[illegible]	57[illegible]	27[illegible]	[illegible]	[illegible]	[illegible]	197	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NORMALS, MEANS AND EXTREMES

State and Station	Elevation Ground (Meters)	Temperature (°C) Normal (1941-1970) January Daily Maximum	January Daily Minimum	July Daily Maximum	July Daily Minimum	Annual	Extremes Length (Yrs)	Extremes Record Highest	Extremes Record Lowest	Normal Heating Degree Days (1941-1970) January	Normal Heating Degree Days (1941-1970) Seasonal	Precipitation (Millimeters) Normal (1941-1970) Wettest Month	Driest Month	Annual	Extremes Wettest Month	Extremes Driest Month	Extremes Maximum In 24 Hours	Snow @ Mean Total January	Snow @ Mean Total Seasonal	Snow @ Extreme Maximum In 24 Hours	Relative Humidity (Percent) January 7:00 a.m. EST	January 1:00 p.m. EST	January 7:00 p.m. EST	July 7:00 a.m. EST	July 1:00 p.m. EST	July 7:00 p.m. EST	Wind Speed (m p s) Mean Speed January	Mean Speed July	Fastest Mile (1.6 Kilometers)	Sunshine (% of Possible) January	Sunshine (% of Possible) July	Annual Mean Number of Days Sunrise to Sunset Clear	Partly Cloudy	Cloudy	Precipitation 25mm or More	Snow, Sleet, Hail 25.4mm or More	Thunderstorms	Heavy Fog	Temperature Max ≥ 32.2 °C	Temperature Min ≤ 0 °C	Temperature Min ≤ -17.8 °C
NEW JERSEY																																								
TRENTON	17	3.8	-3.7	29.4	19.3	12.2	44	41.1	-25.6	567	2748	120	64	1020	358	1	192	140	384	422							4.4	3.5	28.6	45	45	106	116	149	121	7	33		17	88	*
NEW MEXICO							55	40.7	-45.6								287																							
ALBUQUERQUE	1619	8.3	-4.7	33.4	18.4	13.8	37	40.6	-27.2	513	2384	35	7	197	85	0	49	56	267	361	68	48	37	26	23	28	3.6	4.1	40.2	73	76	172	111	82	59	4	43	5	61	123	1
CLAYTON	1515	8.6	-7.4	30.7	15.5	11.5	32	41.1	-29.4	549	2892	70	7	404	197	0	119	41	488	338	34	24	17	8	4	2						164	97	104	67	7	54	11	35	143	3
EATON 26R	1944	7.4	-10.8	30.3	11.4	8.4	30	36.7	-35.0	620	3460	67	7	375	303	0	142	122	615	257	45		28									134	132	99	78	9	75	8	16	182	9
ROSWELL 1970	1111	12.8	-6.3	35.2	16.5	9.7	19	43.3	-22.2	467	2107	46	9	295	143	0	108	69	282	389	70	46	37	34	30	35	3.8	4.2	33.5	78	76	178	102	85	50	4	40	9	107	109	1
ROSWELL	1117	20.3	-4.3	34.8	17.6	15.1	4	40.0	-15.6	463	2054	43	7	269	165	2	59	59	279	119	69	49	39	26	23	28	3.6	4.0	32.6	68	72	176	111	78	47	4	31	15	75	94	0
SILVER CITY 26R	1639	11.4	-3.1	32.4	17.7	14.4	7	38.9	-22.8	439	2058	61	7	273	114	2	53	66	213	178	43	39	36	34								187	110	68	60	3	54	1	43	105	
NEW YORK							87	42.2	-46.7								284																							
ALBANY	84	-0.9	-10.3	28.8	15.4	8.7	30	37.8	-33.3	749	3826	83	54	847	228	5	115	373	1554	556	74	64	73	80	55	64	4.4	3.3	31.7	46	63	71	111	183	135	16	28	23	8	155	17
BINGHAMTON	485	-1.8	-9.3	25.8	15.3	7.8	25	35.6	-28.9	740	4047	97	57	949	240	7	99	480	2200	584	82	75	85	68	66		5.2	3.8	32.2	36	66	46	147	215	164	25	31	53	2	148	8
BINGHAMTON 26R 1948	262	1.2	-7.3	28.4	15.8	9.3	27	37.4	-23.3	661	3564	97	69	932	244	4	116	325	1326	533															151	15			133	7
BUFFALO	215	-1.2	-8.3	26.4	15.9	8.4	33	37.2	-28.9	714	3848	95	57	917	232	3	99	549	2291	617	78	72	76	79	66	61	6.4	4.7	40.7	34	69	55	104	206	168	27	31	19	2	137	5
NEW YORK CENTRAL PK.	40	3.6	-3.4	29.6	20.1	12.5	106	41.1	-26.1	565	2693	102	69	1021	428	1	284	191	739	671	68	60	61	75	55	63	4.8	3.4	31.3	35	65	107	125	133	121	8	20		16	81	*
NEW YORK KENNEDY	4	3.3	-4.8	28.4	19.4	11.7	16	40.0	-18.9	579	2880	109	68	1055	442	1	167	163	607	505	71	59	64	74	58	71	6.0	4.8	32.2			94	123	148	118	7	22	33	10	85	*
NEW YORK LA GUARDIA	3	3.2	-3.1	28.9	20.7	12.4	15	41.7	-18.9	567	2727	114	73	1057	408	1	181	16	671	579	65	57	58	71	52	60	6.2	4.6	31.3			91	117	157	120	7	24	13	13	75	*
ROCHESTER	167	-0.4	-8.9	27.9	15.7	8.6	38	37.8	-26.7	706	3732	75	57	796	246	4	98	538	2187	475	76	72	81	83	59		5.2	3.5	32.6	37	69	61	107	195	155	27	29	13	10	136	6
SYRACUSE	128	-0.3	-9.3	27.8	16.1	8.9	27	35.7	-32.2	713	3710	89	66	925	312	5	108	645	2781	622	75	68	74	80	56	64	4.9	3.8	28.2	35	66	64	110	201	168	33	29	9	6	139	9
NORTH CAROLINA							90	42.8	-33.9								564																							
ASHEVILLE	682	9.1	-0.4	29.1	17.0	13.2	12	35.6	-21.7	467	2354	124	75	1148	287	4	130	97	452	414	76	70	70	96	64	74	4.2	2.6	26.8	56	59	102	107	156	128	5	45	84	5	106	1
CAPE HATTERAS R	7	11.3	1.4	28.8	22.3	16.5	19	35.0	-11.1	339	1517	171	78	1413	372	11	206	10	41	178	86	79	79	85	70	83	5.7	4.6	19.7	49	63	105	100	160	123	1	45	17	3	31	0
CHARLOTTE	224	11.2	0.1	31.3	20.4	15.8	37	40.0	-19.4	394	1788	116	68	1085	317	7	130	53	137	305	79	76	72	88	59	68	3.6	3.0	26.4	55	65	111	103	151	111	2	42	26	31	71	0
GREENSBORO	270	9.3	-1.1	30.8	19.4	14.5	45	38.9	-21.7	453	2125	112	67	1051	337	3	190	31	218	363	81	58	66	91	61	72	3.7	3.0	28.2	51	64	112	104	149	118	2	47	32	27	85	*
RALEIGH	132	10.4	-1.1	30.9	19.6	15.1	32	40.6	-17.8	424	1952	129	71	1081	329	4	132	69	180	236	78	55	63	90	60	73	3.9	3.0	32.6	55	61	113	107	145	112	2	46	36	25	82	*
WILMINGTON	9	13.7	3.3	31.6	22.7	17.6	25	40.6	-12.2	326	1352	212	75	1361	394	4	209	10	48	297	81	58	73	87	65	78	4.2	3.7	39.3	57	63	114	106	145	118	1	46	24	40	41	0
NORTH DAKOTA							85	49.4	-51.1								206																							
BISMARCK	503	-7.4	-19.3	29.1	14.1	5.3	37	42.8	-42.2	978	5024	91	11	410	211	1	83	178	970	394	73	67	69	83	46	42	4.5	4.2	32.2	54	76	94	105	166	96	12	34	12	22	186	51
FARGO	273	-9.2	-19.9	28.2	14.8	4.9	24	41.1	-37.2	1018	5150	81	11	498	239	1	120	180	879	284	73	71	72	86	54	52	5.8	4.8	51.4	50	71	87	112	166	102	11	33	13	15	181	54
WILLISTON	579	-7.1	-19.3	28.9	13.4	4.9	15	41.7	-40.6	977	5069	83	12	364	187	1	126	173	950	236	78	72	74	82	46	39	4.5	4.2	31.3	48	75	90	107	168	94	12	27	9	20	191	53
OHIO							103	45.0	-39.4								267																							
AKRON	369	1.1	-7.4	28.1	16.0	9.8	28	37.8	-29.4	667	3457	98	55	892	290	2	106	257	1207	455	78	69	71	84	56	62	5.2	3.4	22.8			70	101	194	153	15	40	28	7	128	5
CINCINNATI AMBE OPS.	233	4.7	-4.3	30.3	18.8	12.7	61	42.8	-27.2	567	2691	105	56	1017	347	3	121	138	480	279							3.7	2.3	21.9	41	68			131	6	50		28	98	2
CLEVELAND	237	0.8	-6.3	27.0	16.3	9.8	35	39.4	-28.3	656	3419	89	55	889	241	2	102	267	1313	381	76	69	71	82	58	62	5.6	3.9	33.1	32	68	70	98	197	156	18	36	13	8	125	5
COLUMBUS	247	2.1	-6.4	29.3	16.9	10.8	37	38.9	-26.1	633	3167	107	48	940	248	3	122	180	696	226	76	68	69	84	56	60	4.6	3.0	26.2	37	63	75	106	184	136	9	42	18	15	122	4
DAYTON	303	2.1	-6.4	29.3	18.1	11.1	33	38.9	-26.7	635	3134	99	49	873	277	3	109	168	696	287	76	69	71	85	54	58	5.2	3.6	34.9	41	66	80	102	183	130	9	40	23	17	117	4
MANSFIELD	395	1.8	-6.3	28.7	17.4	10.7	17	36.1	-28.9	637	3232	96	50	855	205	11	129	226	1021	312	80	71	75	82	56	64	5.9	3.7	20.6			70	102	193	139	14	40	32	7	126	6
TOLEDO	204	0.4	-8.3	28.8	16.0	9.6	21	37.2	-27.2	682	3545	86	44	800	215	7	112	218	947	353	79	68	73	85	54	60	4.9	3.4	32.2	43	68	71	110	184	136	12	40	18	13	145	8
YOUNGSTOWN	354	0.4	-7.6	27.7	15.3	9.3	33	37.8	-27.8	677	3570	99	61	965	251	7	109	315	1461	526	82	73	76	85	55	64	5.3	3.5	25.9			66	99	200	162	19	38	29	7	136	5
OKLAHOMA							85	48.9	-32.8								398																							
OKLAHOMA CITY	392	8.7	-3.3	33.7	21.3	15.5	23	42.2	-20.0	486	2053	132	28	797	274	T	195	71	229	213	79	61	61	81	50	47	5.9	5.0	38.9	59	75	141	96	128	81	3	51	19	64	80	*
TULSA	199	8.3	-3.3	33.8	21.9	15.7	38	44.4	-22.2	489	2044	130	36	937	478	T	192	74	234	249	78	59	59	83	54	53	4.8	4.2	33.5	53	71	127	101	137	90	4	52	10	7	85	1
OREGON							87	48.3	-47.8								258																							
ASTORIA	2	8.1	1.4	19.8	11.2	10.3	23	37.8	-14.4	420	2941	268	24	1685	556	T	110	81	165	274	87	85	79	89	75	69	4.2	3.8	24.6			50	75	240	198	2	8	43	1	38	0
BURNS	1265	1.9	-9.4	29.8	10.6	7.8	20	39.4	-32.2	685	4006	45	9	300	146	2	55	368	1207	279	82	66	85	46	30	21	2.8	3.4	31.7			124	92	149	91	16	14	12	21	188	5
EUGENE	109	7.6	0.4	28.1	10.6	11.4	34	41.1	-24.4	441	2633	194	7	1081	533	2	124	150	196	582	91	87	80	87	56	37	3.8	3.6	28.2			77	81	207	137	3	5	58	15	54	*
MEACHAM 1975	1234	0.1	-6.8	25.1	9.9	6.5	31	40.6	-30.6	668	4368	117	14	830	262	2	76	833	3658	582	88	71	79	92	39	26			19.7			94	67	204	146	44	16	31	3	166	4
MEDFORD	395	6.8	-1.7	31.9	12.1	11.7	47	46.1	-21.1	489	2739	94	6	524	323	2	95	102	218	236	89	87	73	94	44	26	1.8	2.5	24.6			117	80	168	101	3	8	48	55	92	*
PENDLETON	452	3.7	-3.7	31.2	14.9	11.3	41	45.0	-30.0	568	2911	41	7	313	119	0	39	198	445	338	80	76	74	93	33	22	3.8	4.2	34.4			107	88	170	99	6	10	29	34	82	3
PORTLAND	6	6.4	0.3	26.1	12.9	11.4	36	41.7	-19.4	463	2662	153	12	955	326	2	67	109	188	269	86	82	76	82	61	45	4.5	3.3	39.3	24	69	69	88	228	152	2	7	33	10	44	*
SALEM	60	7.4	0.1	28.0	10.4	11.3	39	42.2	-24.4	451	2695	175	9	1043	391	2	80	97	180	274	85	84	76	85	57	40	4.0	2.9	25.9			78	81	215	150	2	5	38	17	68	*
SEXTON SUMMIT R	1169	4.3	-1.6	24.3	10.8	8.7	32	37.8	-18.9	526	3572	166	8	934	612	2	152	643	2710	866	80	80	76	85	60	40	5.7	5.3	28.2			128	67	170	129	29	6	160	2	114	*

NORMALS, MEANS AND EXTREMES

State and Station	Elevation Ground (Meters)	Temperature (°C) Normal (1941-1970) January Daily Maximum	January Daily Minimum	July Daily Maximum	July Daily Minimum	Annual	Extremes Length (Yrs)	Extremes Record Highest	Extremes Record Lowest	Normal Heating Degree Days (1941-1970) January	Normal Heating Degree Days (1941-1970) Seasonal	Precipitation (Millimeters) Normal (1941-1970) Wettest Month	Normal Driest Month	Normal Annual	Extremes Wettest Month	Extremes Driest Month	Extremes Maximum In 24 Hours	Snow @ Mean Total January	Snow @ Mean Total Seasonal	Snow @ Extreme Maximum In 24 Hours	Relative Humidity (Percent) January 7:00 a.m. EST	January 1:00 p.m. EST	July 7:00 a.m. EST	July 1:00 p.m. EST	Wind Speed (m.p.s.) Mean Speed January	Mean Speed July	Fastest Mile (1.6 Kilometers)	Sunshine (% of Possible) January	Sunshine (% of Possible) July	Annual Mean Number of Days Sunrise to Sunset Clear	Sunrise to Sunset Partly Cloudy	Sunrise to Sunset Cloudy	Precipitation .25mm or More	Snow, Sleet, Hail 25.4mm or More	Thunderstorms	Heavy Fog	Temperature Max 32.2°C Al	Temperature Max 0°C VI	Temperature Min 17.8°C VI
PACIFIC AREA																																							
MARCUS ISLAND 1968	4	24.4	21.1	29.7	25.6	25.7	4	33.9	12.8	0	0	183	41	1081	343	9	144				77	75	87	84	6.3	5.2	51.08	73	85	14	7	33	16	0	0	23	0	0	C
GUAM TAGUAC K	110	28.4	21.9	31.1	25.5	25.9	4	35.0	12.2	0	0	366	75	2303	1019	13	686				88	78	78	69	3.7	2.3	35.55	55	7	13	9	8	26	9	0	27	0	0	C
JOHNSTON	2	27.1	23.7	29.2	25.3	26.1	21	31.7	16.7	0	0	88	26	713	401	7	242				75	75	67	78	7.6	6.1	46.99	77	8	16	5	17	7	4	0	3	0	0	C
KOROR P	26	30.2	23.9	31.6	24.4	27.2	27	35.0	20.6	0	0	411	189	3650	884	31	359				89	80	81	89	3.8	3.0	32.65	52	6	4	9	3	27	3	1	54	1	0	C
KWAJALEIN	3	29.4	25.1	30.4	25.3	27.7	24	34.1	20.6	0	0	304	60	2573	772	4	436				80	71	84	78	7.5	4.8	42.6		7	7	9	2	10	1	0	9	0	0	C
MAJURO	3	29.3	25.0	29.7	24.4	27.3	21	32.8	20.6	0	0	406	177	3629	770	6	454				80	75	83	77	5.6	3.8	37.05	53	11	8	2	7	26	2	0	17	0	0	C
PAGO PAGO	4	31.6	23.3	28.7	22.8	26.4	17	33.3	16.7	0	0	377	154	3265	830	19	274				88	84	76	75	3.7	2.2	25.53	53	24	4	1	4	20	2	0	2	0	0	C
PONAPE M	37	29.6	24.2	30.7	22.7	26.9	26	35.6	18.9	0	0	497	241	4920	982	42	571				88	84	76	75	3.7	2.2	25.53	53	24	4	1	4	20	2	0	2	0	0	C
TRUK INTL ISLAND	7	29.6	24.6	30.8	23.0	27.3	26	34.4	20.0	0	0	400	163	3701	886	21	379				85	82	76	89	4.7	3.4	34.56		5	5	5	2	20	1	0	8	0	0	C
WAKE	3	27.6	22.5	30.6	25.0	26.4	34	33.3	17.8	0	0	161	27	950	449	9	381				75	77	56	82	6.1	5.7	46.57	81	1	7	9	8	18	1	0	1	0	0	C
YAP R	12	29.6	24.9	30.7	24.4	27.3	26	36.1	18.3	0	0	385	137	3067	882	25	265				86	77	89	79	4.6	2.7	32.2	54	7	6	9	1	26	2	0	23	0	0	C
PENNSYLVANIA							87	40.9	41.1																														
ALLENTOWN	110	2.1	-4.4	29.3	17.1	11.6	33	38.6	24.4	64	3237	111	69	1079	307	9	122	196	33	445	77	74	98	82	4.8	3.2	36.2		54	12	5	11	12	8	4	10	28	4	C
ERIE	219	1.1	-7.5	28.2	15.5	10.4	33	34.4	26.1	87	3806	94	54	970	251	18	123	500	283	584	74	72	73	62	6.2	4.1	42.0		44	9	7	4	11	8	2	14	34	4	C
HARRISBURG	109	3.1	-3.3	31.4	18.6	13.8	38	41.1	22.3	60	2900	96	61	926	471	1	314	206	69	533	75	64	78	65	3.7	2.8	33.45	46	7	10	5	9	33	1	0	14	1	0	C
PHILADELPHIA	4	4.5	-1.4	31.4	19.3	14.4	75	41.1	20.6	543	2703	104	64	1014	246	9	144	137	51	371	74	67	79	64	4.0	3.0	32.65	43	22	13	6	11	6	3	7	19	1	1	C
PITTSBURGH INTL AP	247	1.4	-4.8	29.4	16.7	11.2	34	37.2	27.8	635	3094	98	60	920	208	4	90	249	114	373	74	66	78	63	4.8	3.4	35.45	52	11	5	4	15	6	9	7	24	5	0	C
READING	278	3.1	-1.8	31.2	18.4	11.7	42	39.4	25.0	506	2933	96	56	926	225	4	91	188	267	511																				
SCRANTON WB AP	81	3.9	-1.8	29.2	16.6	10.4	29	39.4	18.9	556	2747	108	67	1052	377	4	154	218	117	475	71	75			5.1	3.8	35.85	46	9	11	5	12	31	2	0	22	0	0	C
WILLIAMSPORT	161	2.1	-3.1	30.3	17.3	9.7	22	38.3	23.0	651	3367	114	56	894	206	1	92	244	127	521	76	67	78	65	4.4	3.3	36.0	44	7	11	7	8	14	3	1	31	1	0	C
WILMINGTON	44	2.1	-2.1	29.1	15.9	10.1	32	38.4	26.1	551	3329	114	64	1016	427	5	220	249	112	587	73	69	84	66	4.4	2.9	34.4		67	14	4	14	12	9	4	13	33	4	C
[illegible] ISLAND							87	[illegible]	30.6								308																						
PUERTO RICO	26	31.[illegible]	23.7	34.2	24.4	28.1	11	[illegible]	20.0	574	3044	146	56	1129	292	9	216	13	5.8	429	73	45	77	72					97	11	5	3	16	4	17	8	2	89	0	0	C
SAN JUAN	4	30.3	24.3	31.3	25.0	27.8	30	34.0	25.6	630	3317	145	67	1086	302	15	168	239	99	465	77	69	78	68	5.1	4.2	46.3	65	5	11	2	10	5	2	0	124	1	0	C
SOUTH CAROLINA							42	43.9	25.0								337																						
ANDERSON	247	11.[illegible]	2.3	31.1	17.[illegible]	[illegible]	34	[illegible]	13.0	299	1119	2.3	54	1326	642	7	257	T	15	15	64	67	89	78	4.1	3.6	[illegible]	74	1	13	4	11	11	8	56	19	47	34	0	C
CHARLESTON	44	13.6	1.1	33.3	19.3	17.5	39	[illegible]	15.6	338	1443	144	59	1178	425	T	195	20	43	399	84	74	79	67	3.1	2.9	26.8	74	1	13	4	11	11	1	2	64	60	0	C
COLUMBIA METROPOLITAN	70	14.4	[illegible]	[illegible]	[illegible]	[illegible]	14	[illegible]	21.1	491	1757	155	75	1208	296	4	158	40	147	29	78	64	85	75	3.2	2.6	23.2	66	11	11	4	11	11	2	4	34	28	68	0	C
SOUTH DAKOTA							87	40.9	50.0								203																						
ABERDEEN	396	-0.4	-18.4	29.5	14.7	6.0	17	[illegible]	39.4	950	4787	42	11	485	96	0	102	163	47	381	72	33	44	32	5.1	4.2	35.4		2	31	1	11	10	12	36	18	27	181	44
HURON	381	-1.8	-17.[illegible]	31.[illegible]	15.7	[illegible]	38	[illegible]	39.4	904	4475	46	11	494	111	T	139	135	[illegible]	447	68	71	85	56	5.2	4.[illegible]	[illegible]		1	[illegible]	6	8	12	[illegible]	[illegible]	[illegible]	174	38
RAPID CITY	964	[illegible]	-17.[illegible]	31.[illegible]	15.[illegible]	[illegible]	34	[illegible]	32.8	742	4108	53	13	435	187	T	102	[illegible]	983	414	85	59	83	72	4.3	4.5	39.5		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	169	22
SIOUX FALLS	433	[illegible]	-17.[illegible]	29.5	16.6	[illegible]	31	[illegible]	37.8	875	4304	11	14	628	231	T	117	[illegible]	496	64	76	67	78	51	5.[illegible]	4.3	31.3		105	5	15	9	11	[illegible]	[illegible]	[illegible]	98	176	33
TENNESSEE							9[illegible]	[illegible]	35.6								279																						
[illegible]	[illegible]	7.8	-2.6	29.9	18.[illegible]	13.[illegible]	31	38.9	26.1	433	2349	126	57	1053	247	7	93	118	38	411	84	64	89	64	[illegible]	1.9	22.[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	9.[illegible]	-1.[illegible]	31.7	20.[illegible]	[illegible]	37	[illegible]	33.3	427	1947	148	75	1319	351	7	160	[illegible]	[illegible]	226	93	68	85	74	[illegible]	[illegible]	36.[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	31.[illegible]	21.[illegible]	15.[illegible]	16	[illegible]	22.8	42	1993	103	68	1173	298	7	129	[illegible]	[illegible]	263	95	63	94	65	[illegible]	2.8	29.[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	9.[illegible]	-1.[illegible]	33.[illegible]	21.[illegible]	15.[illegible]	26	[illegible]	25.[illegible]	42	1793	133	66	1247	312	7	151	[illegible]	[illegible]	297	94	68	85	75	[illegible]	3.4	25.[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	9.[illegible]	-1.[illegible]	32.[illegible]	21.[illegible]	[illegible]	37	[illegible]	33.[illegible]	46	2053	127	55	1168	354	7	136	[illegible]	[illegible]	298	94	66	84	74	[illegible]	2.6	26.[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	8.[illegible]	-1.[illegible]	32.[illegible]	21.[illegible]	[illegible]	19	[illegible]	22.[illegible]	463	2191	144	69	1330	489	T	190	[illegible]	[illegible]	305					[illegible]	1.7	26.[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TEXAS							9[illegible]	48.9	30.6								976																						
[illegible]	[illegible]	15.[illegible]	[illegible]	35.6	[illegible]	25.1	37	[illegible]	32.8	367	1451	93	25	599	335	[illegible]	170	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	9.[illegible]	[illegible]	33.[illegible]	[illegible]	15.[illegible]	35	[illegible]	35.6	99	2364	83	13	515	273	[illegible]	171	[illegible]	266	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	15.[illegible]	4.[illegible]	35.2	[illegible]	[illegible]	[illegible]	[illegible]	18.[illegible]	268	965	[illegible]	42	825	313	[illegible]	183	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-7.[illegible]	[illegible]	361	[illegible]	19	637	489	T	310	[illegible]	T	T	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	19.[illegible]	[illegible]	34.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.[illegible]	14[illegible]	547	114	23	725	515	[illegible]	223	[illegible]	T	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	13.[illegible]	1.[illegible]	35.2	23.[illegible]	15.[illegible]	[illegible]	[illegible]	15.[illegible]	348	1329	114	44	820	321	T	150	[illegible]	T	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	13.[illegible]	[illegible]	[illegible]	24.[illegible]	18.[illegible]	[illegible]	[illegible]	13.[illegible]	[illegible]	1329	[illegible]	49	878	321	T	233	[illegible]	51	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	17.[illegible]	[illegible]	37.[illegible]	23.[illegible]	[illegible]	[illegible]	[illegible]	18.[illegible]	[illegible]	946	[illegible]	13	429	491	[illegible]	193	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	19.[illegible]	-1.[illegible]	34.[illegible]	21.[illegible]	[illegible]	37	[illegible]	32.2	368	1489	94	[illegible]	197	[illegible]	[illegible]	67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	15.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13.[illegible]	[illegible]	48	[illegible]	65	1270	641	[illegible]	364	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NORMALS, MEANS AND EXTREMES

YEAR 1-76

State and Station	Elevation Ground (Meters)	Temperature (°C) Normal (1941-1970) January Daily Maximum	January Daily Minimum	July Daily Maximum	July Daily Minimum	Annual	Extremes Length (Yrs)	Extremes Record Highest	Extremes Record Lowest	Normal Heating Degree Days (1941-1970) January	Normal Heating Degree Days (1941-1970) Seasonal	Precipitation (Millimeters) Normal (1941-1970) Wettest Month	Normal Driest Month	Normal Annual	Extremes Wettest Month	Extremes Driest Month	Extremes Maximum In 24 Hours	Snow @ Mean Total January	Snow @ Mean Total Seasonal	Snow @ Extreme Maximum In 24 Hours	Relative Humidity (Percent) January 7:00 a.m. EST	January 1:00 p.m. EST	July 7:00 a.m. EST	July 1:00 p.m. EST	Wind Speed (m p s) Mean Speed January	Mean Speed July	Fastest Mile (116 Kilometers)	Sunshine (% of Possible) January	Sunshine (% of Possible) July	Annual Mean Number of Days Sunrise to Sunset Clear	Sunrise to Sunset Partly Cloudy	Sunrise to Sunset Cloudy	Precipitation 25mm or More	Snow, Sleet, Hail 25.4mm or More	Thunderstorms	Heavy Fog	Temperature Max AT 32.2°C	Temperature Max VI 0°C	Temperature Min VI 17.8°C
TEXAS																																							
HOUSTON INTERCON	29	17.0	5.2	34.3	22.7	20.5	7	38.3	-7.2	231	797	130	68	1224	366	7	207	5	10	51	88	65	71	93	59	44	3.7	2.9	20.6	44	65	94	109	162	107	*	69	39	81	24	C
HOUSTON HOBBY 1969	15	17.6	6.4	33.4	23.2	20.7	7	41.1	-8.3	213	775	111	68	1167	567	7	398	5	10	112	84	64	79	95	94	4	5.3	3.9	24.1	47	74	87	126	152	103	0	59	42	95	13	C
LUBBOCK	992	11.9	-4.0	33.6	19.4	15.4	30	41.7	-26.7	446	1969	81	12	468	225	2	145	46	244	307	72	48	67	84	64	1	5.6	5.1	31.3	70	70	164	103	98	60	3	45	16	77	98	*
MIDLAND	869	14.3	-1.4	35.0	20.8	17.7	29	42.8	-22.2	368	1456	55	12	343	196	2	152	36	89	173	69	45	39	71	42	34	4.5	4.6	30.0			167	97	121	51	2	36	15	89	65	0
PORT ARTHUR	5	16.4	5.8	33.3	23.3	20.3	29	41.7	-10.0	233	843	150	77	1399	475	2	335	T	13	112	90	70	78	95	65	72	5.1	3.5	33.1	43	65	94	123	148	105	*	64	41	79	18	C
SAN ANGELO	580	15.1	2.9	36.1	22.4	19.0	29	43.9	-17.2	321	1244	70	18	445	234	2	153	28	76	147	73	54	63	74	63	37	4.6	4.3	33.5			157	97	111	57	1	37	8	109	52	0
SAN ANTONIO	249	16.4	4.3	35.3	23.2	20.4	35	41.1	-17.8	251	872	94	37	700	401	2	185	5	13	119	80	57	68	75	45	5	4.1	4.1	33.1	49	75	110	117	138	81	*	36	23	111	22	*
VICTORIA	32	17.4	5.4	34.1	24.1	21.2	16	41.7	-8.9	207	682	117	45	671	369	7	218	T	5	33	86	64	89	92	57	40	4.8	4.0	44.3			84	119	163	88	*	48	41	100	12	0
WACO	158	14.1	2.5	35.7	23.9	19.5	34	44.4	-20.6	310	1143	117	37	794	381	2	182	23	38	178	82	63	61	79	49	44	5.4	4.9	30.8			132	101	132	77	1	46	13	102	32	0
WICHITA FALLS	303	11.9	-1.4	37.3	22.4	17.8	30	45.0	-20.6	405	1613	116	27	691	306	2	146	41	140	150	81	56	67	84	44	40	5.1	4.8	26.8			155	93	117	69	2	49	12	105	69	*
UTAH							80	46.7	-45.6								152																						
MILFORD	537	3.6	-10.6	33.0	13.2	9.6	28	40.6	-35.6	677	3562	26	13	213	66	2	34	2.8	1133	414	66	60	24	20					25.5	65	75	153	103	109	63	15	32	7	58	182	13
SALT LAKE CITY	1295	3.0	-7.5	33.9	15.8	11.6	48	41.7	-34.4	637	3324	54	17	335	124	2	61	338	1471	466	77	49	75	126	91	3	3.4	4.2	31.7	78	4	129	133	133	88	18	35	11	58	134	3
WENDOVER 1976	1291	2.2	-7.3	33.3	19.2	11.2	38	44.4	-28.3	648	3200	19	6	124	76	1	34	56	191	216	70	62	59	83	22	10						152	92	121	48	3	29	5	50	128	1
VERMONT							84	40.6	-45.6								223																						
BURLINGTON	101	-3.4	-13.6	27.2	14.7	6.9	33	38.3	-34.4	830	4375	94	43	827	293	10	91	450	2202	419	69	63	65	81	55	43	4.3	3.9	36.0	44	65	56	103	204	153	22	25	16	5	163	28
VIRGINIA							80	43.3	-33.9								686																						
LYNCHBURG	279	7.7	-2.6	30.1	18.6	13.5	32	39.4	-20.0	489	2351	103	66	972	290	7	159	127	462	340	72	53	60	86	68	71	3.9	3.0	25.0	59	61	115	102	147	120	5	41	40	18	94	*
NORFOLK	7	9.3	1.1	30.3	21.1	15.3	29	39.4	-13.3	422	1938	150	69	1135	349	9	290	76	176	290	75	59	68	86	73	53	5.2	3.9	34.4	57	55	111	102	155	115	2	37	23	30	54	0
RICHMOND	50	8.6	-2.4	31.2	19.7	14.3	47	40.0	-24.4	474	2188	143	70	1082	479	8	223	57	356	549	81	57	69	85	56	72	3.9	3.0	30.4	51	65	103	117	155	113	4	37	29	41	85	*
ROANOKE	351	7.6	-2.7	29.4	18.4	13.3	29	40.0	-20.0	493	2393	115	63	991	247	5	163	163	622	442	45	25	78	35	66	55	4.3	3.0	25.9			103	114	148	121	7	38	25	20	92	*
WASHINGTON							110	47.8	-44.4								305																						
OLYMPIA	59	6.7	-1.9	25.8	9.3	10.1	35	39.4	-21.7	479	3072	208	18	1289	504	2	125	236	490	522	91	88	91	91	64	49	3.4	2.7	26.8			51	89	225	163	6	5	90	6	89	*
QUILLAYUTE	55	6.7	1.7	19.8	10.2	9.3	10	35.6	-13.9	453	3306	396	60	2567	690	9	211	251	566	213	90	89	85	94	73	54	3.6	2.7	17.4	17	45	47	76	48	215	7	7	50	1	67	
SEATTLE EMSU U	6	7.1	1.5	24.3	13.1	11.4	43	37.8	-12.2	436	2626	136	22	906	278	7	84	102	218	292									29.2	28	43	71	93	152	103	3	8		2	14	C
SEATTLE TACO A	123	6.3	0.6	23.9	12.1	10.6	32	37.2	-17.8	462	2880	151	18	985	328	7	87	175	376	544	78	75	83	86	54	49	4.6	3.8	28.1	21	67	57	79	129	160	5	7	47	3	32	C
SPOKANE	716	-0.5	-6.0	29.1	12.8	8.5	29	42.2	-31.7	682	3797	63	10	442	145	7	53	405	1349	331	83	81	76	60	38	25	4.0	3.7	26.4	26	81	89	87	169	114	18	11	48	21	141	5
STAMPEDE PASS R	1236	-2.6	-7.3	18.6	9.3	4.3	33	32.2	-29.4	722	5322	363	33	2313	773	5	202	2149	1351	958	89	92	91	86	65	59						68	56	141	206	87	75	52	*	188	3
WALLA WALLA	389	4.1	-2.5	31.0	16.8	12.3	62	45.0	-26.7	550	2686	53	8	407	149	2	51	198	508	356	76			34			2.3	2.4	30.4	23	45	115	86	164	106	7	11	44	36	64	2
YAKIMA	321	2.4	-7.4	31.2	11.4	9.9	30	43.3	-31.7	540	3338	34	4	203	106	2	37	257	632	356	82	76	70	88	35	25	2.6	3.4	21.5			112	90	163	67	8	7	18	33	150	4
WEST INDIES																																							
SAN JUAN P.R.	4	27.7	21.4	31.0	23.8	25.9	22	35.6	15.6	0	0	177	52	1502	383	11	162	0	0	0	84	64	75	78	66	67	4.2	4.5	35.8	66	65	58	75	92	200	0	40	0	37	0	0
SWAN ISLAND 1970	9	28.1	23.3	31.7	25.3	27.2	27	33.3	17.8	0	0	188	16	1311	801	7	274	0	0	0												79	159	127	153	0			13	0	0
WEST VIRGINIA							86	44.4	-38.3								483																						
BECKLEY	763	4.4	-5.1	26.7	15.5	10.5	13	32.2	-36.1	579	3119	111	63	1083	233	4	136	318	1389	351	80	67	71	90	61	73	4.9	3.1	23.7			67	96	204	162	17	45	46	*	116	3
CHARLESTON	286	6.4	-3.7	29.8	17.9	12.3	29	38.9	-24.4	520	2550	128	62	1035	344	9	142	216	739	384	77	46	59	90	56	46	3.4	2.3	24.6			59	116	190	145	9	43	11	21	101	1
ELKINS	594	4.8	-3.1	26.8	13.9	9.8	32	36.1	-29.4	603	3317	125	69	1098	236	9	82	335	1174	475	84	72	75	95	61	73	3.3	1.9	24.6			50	110	205	167	22	44	81	2	143	6
HUNTINGTON	252	6.1	-1.6	29.8	13.2	12.9	16	37.8	-26.1	529	2569	106	53	988	235	7	108	183	589	267	79	66	59	86	47	47	3.3	2.1	21.1			67	104	195	139	7	44	64	17	100	2
PARKERSBURG	187	5.2	-4.2	9.8	14.2	12.6	85	41.1	-32.8	553	2676	109	54	976	306	2	122	173	617	465	86	74	80	96	67	67	3.2	2.3	29.4	32	62	71	96	153	142	7	44	12	22	98	2
WISCONSIN							84	45.6	-47.8								298																						
GREEN BAY	208	-4.5	-13.9	27.1	14.3	6.5	27	37.2	-35.0	854	4498	87	29	686	230	7	117	251	1142	257	77	73	85	85	59	54	5.0	3.8	46.7	45	64	90	102	173	120	14	35	27	7	103	29
LA CROSSE	199	-3.9	-13.3	28.3	15.9	8.1	26	39.4	-38.3	842	4120	113	22	739	267	7	100	241	1082	399	76	70	87	87	57	57	3.9	3.4	28.2			95	97	173	109	12	40	21	16	122	26
MADISON	262	-3.7	-13.2	27.4	14.9	7.2	37	40.0	-38.3	833	4094	110	24	768	278	2	133	224	1008	406	78	73	86	86	57	53	4.7	3.7	34.4	46	69	94	96	175	117	12	40	22	12	164	25
MILWAUKEE	203	-2.6	-11.4	28.9	15.2	7.6	30	38.3	-31.1	785	4135	91	29	738	251	1	134	317	1143	424	78	71	82	86	63	53	5.8	4.3	32.6	44	71	90	99	170	122	13	36	26	9	146	16
WYOMING							117	43.6	-52.8								140																						
CASPER	1627	0.9	-10.4	31.6	12.7	7.4	29	41.0	-40.0	724	4197	49	12	285	142	7	76	25	1254	419	86	66	62	93	33	26	7.6	4.5	36.2			112	109	144	92	23	34	9	24	186	19
CHEYENNE	1857	3.4	-9.5	28.7	12.5	7.7	41	37.5	-36.7	661	4030	64	9	372	136	7	87	150	1341	413	54	44	36	53	34	27	7.1	4.7	33.5	61	68	106	128	131	97	16	50	23	10	172	12
LANDER	1696	-0.5	-13.3	30.0	12.8	6.9	30	38.3	-38.3	782	4371	66	11	352	175	7	90	218	2047	587	64	59	56	83	40	33	2.9	3.4	35.8	67	71	115	127	123	72	25	32	3	19	187	26
SHERIDAN	1209	0.8	-13.1	30.1	12.9	7.2	36	41.1	-37.2	758	4282	76	18	410	242	7	98	262	1783	678	67	59	62	73	38	34	3.5	3.2	37.0	65	76	99	110	156	108	23	35	6	23	194	24

NORMALS, MEANS AND EXTREMES

State and Station	Elevation (Ground) (Meters)	Temperature (°C)								Normal Heating Degree Days (1941–1970)		Precipitation (Millimeters)								Relative Humidity (Percent)				Wind Speed (m.p.s.)			Sunshine (% of Possible)		Annual Mean Number of Days									
		Normal (1941–1970)					Extremes					Normal (1941–1970)			Extremes			Snow @											Sunrise to Sunset					Temperature	
		January		July																													Max	Min
		Daily Maximum	Daily Minimum	Daily Maximum	Daily Minimum	Annual	Length (Yrs)	Record Highest	Record Lowest	January	Seasonal	Wettest Month	Driest Month	Annual	Wettest Month	Driest Month	Maximum In 24 Hours	Mean Total January	Mean Total Seasonal	Extreme Maximum In 24 Hours	January 7:00 a.m. EST	July 7:00 a.m. EST	January 1:00 p.m. EST	July 1:00 p.m. EST	Mean Speed January	Mean Speed July	Fastest Mile (1.6 Kilometers)	January	July	Clear	Partly Cloudy	Cloudy	Precipitation .25mm or More	Snow, Sleet, Hail 25.4mm or More	Thunderstorms	Heavy Fog	32.2 C	0 C	17.8 C

[1] Data not adjusted to homogeneous conditions.
[2] Data for this table are based on records through 1970 except as indicated in table.
[3] Trace amount (amount too small to measure, though occurrence is recorded in table).
[4] Normal values are based on records ending April 1958, and are adjusted to represent conditions as at the present location. Records that stations have been moved before 1951 are shown on the 1941-1960 period.
[5] Means are based on a daily average of 18.3°C.
[6] Period records or records prior to ANNUAL LOCAL CLIMATOLOGICAL DATA, 1958.
[7] Clear, for averages 0-3 tenths sky cover; Partly Cloudy 4-7 tenths and Cloudy 8-10 tenths.
[8] Heating degree days, formerly referred to as "Degree Days Fahrenheit Temperature Base" for years 1931 to 1952 inclusive.
[9] Less than one-half.
[10] Annual or seasonal values 21.1 or above (Alaskan stations).

[1] Means and extremes are from post office location through 1962, Lorain Harbor reading 8:00 a.m. and Noon Lorain time.
[2] Sky cover sunrise to sunset, Nov. 1 - Mar. 31.
[3] Sky cover sunset to sunrise, Nov. 1 - Mar. 31.
[4] Based on twenty-year totals for period 1951-1960.
[5] Snow, sleet amount based on 1951-1960.
[6] Includes all forms of frozen precipitation, except heavy concentrations.

ELEVATIONS

Anchorage	114	35
Annette	211	64
Barrow	22	7
Bethel	56	17
Big Delta	1290	393
Cape Hinchinbrook	74	23
Cape Lisburne	14	4
Cape Newenham	50	15
Cape Romanzof	200	61
Cold Bay	87	27
College	437	133
Fairbanks	440	134
Fort Yukon	433	132
Gulkana	1578	481
Homer	84	26
Juneau	20	6
Kenai	99	30
Ketchikan	110	34
Kodiak	81	25
Kotzebue	16	5
McGrath	331	101
Middleton Island	52	16
Nenana	362	110
Nome	13	4
Northway	1713	522
Petersburg	34	10
Point Barrow	22	7
Port Alsworth	1200	366
Sitka	66	20
Talkeetna	358	109
Tanana	362	110
Unalakleet	56	17
Valdez	122	37
Whittier	30	9
Yakutat	34	10
ARIZONA		
Flagstaff	6970	2125
Grand Canyon	6859	2091
Kingman	3337	1017
Page	4317	1316
Phoenix	1117	340
Prescott	5367	1636
Tucson	2555	779
Winslow	4880	1488
Yuma	199	61
ARKANSAS		
Fayetteville	1250	381
Fort Smith	449	137
Little Rock	257	78
Texarkana	390	119
CALIFORNIA		
Alturas	4412	1345
Bakersfield	475	145
Blue Canyon	5280	1610
Burbank	699	213
Eureka	43	13
Fresno	331	101
Long Beach	44	13
Los Angeles	312	95
Mount Shasta	3555	1084
Oakland	6	2
Red Bluff	341	104
Sacramento	25	8
San Diego	19	6
San Francisco	52	16
San Jose	95	29
Santa Maria	239	73
Stockton	23	7
COLORADO		
Alamosa	7536	2297
Colorado Springs	6012	1833
Denver	5283	1611
Grand Junction	4597	1401
Pueblo	4726	1441
CONNECTICUT		
Bridgeport	10	3
Hartford	19	6
New Haven	7	2
DELAWARE		
Wilmington	80	24
DISTRICT OF COLUMBIA		
Washington	410	125
FLORIDA		
Apalachicola	5	2
Daytona Beach	42	13
Fort Myers	30	9
Key West	21	6
Lakeland	226	69
Miami	12	4
Orlando	116	35
Pensacola	118	36
Tallahassee	68	21
Tampa	11	3
West Palm Beach	21	6
GEORGIA		
Athens	814	247
Atlanta	1064	315
Augusta	148	45
Columbus	394	120
Macon	362	110
Rome	643	196
Savannah	51	16
HAWAII		
Hilo	36	11
Honolulu	7	2
Kahului	54	16
Lihue	48	14
IDAHO		
Boise	2868	871
Lewiston	1436	438
Pocatello	4178	1365
ILLINOIS		
Cairo	90	27
Chicago (Midway)	623	190
Moline	594	181
Peoria	662	202
Rockford	741	226
Springfield	613	187
INDIANA		
Evansville	385	118
Fort Wayne	828	252
Indianapolis	808	246
South Bend	773	236
IOWA		
Burlington	691	211
Charles City	955	291
Des Moines	1080	329
Dubuque	1103	336
Sioux City	879	268
KANSAS		
Concordia	1181	360
Dodge City	2592	790
Goodland	3688	1124
Topeka	885	270
Wichita	1340	408
KENTUCKY		
Covington	877	267
Lexington	984	300
Louisville	488	149
LOUISIANA		
Lake Charles	15	5
New Orleans	56	17
Shreveport	259	79
MAINE		
Caribou	610	186
Portland	29	9
Presque Isle	1017	310
MARYLAND		
Allegany	694	211
Baltimore	620	189
Cumberland	661	202
Frederick	766	233
Hagerstown	803	245
Salisbury	1160	354
Silver Hill	874	266
Westover	734	224
MASSACHUSETTS		
Blue Hill Observatory	633	193
Boston	721	221
Chatham	610	195
Nantucket	29	9
Worcester	1017	310
MICHIGAN		
Alpena	691	211
Detroit	626	191
Detroit City Office	661	202
Escanaba	766	233
Grand Rapids	803	245
Houghton	1160	354
Marquette	874	266
Muskegon	734	224
Sault Ste. Marie	633	193
Seney	721	221
MINNESOTA		
Duluth	1417	432
International Falls	1183	361
Minneapolis	838	255
Rochester	1320	402
St. Cloud	1043	318
MISSISSIPPI		
Jackson	331	101
Meridian	340	104
MISSOURI		
Columbia	898	274
Kansas City	750	229
St. Joseph	817	249
St. Louis	564	172
Springfield	1270	387
MONTANA		
Billings	3570	1088
Bozeman	2298	700
Great Falls	3657	1115
Harve	2599	792
Helena	3898	1188
Kalispell	2972	906
Miles City	2641	803
Missoula	3189	972
NEBRASKA		
Grand Island	1856	566
Lincoln	1480	362
Norfolk	1551	473
North Platte	2787	849
Omaha	982	299
Scottsbluff	3958	1206
Valentine	2598	792
NEVADA		
Elko	5077	1547
Ely	6262	1909
Lovelock	2180	664
Reno	4400	1341
Winnemucca	4344	1324
NEW HAMPSHIRE		
Concord	350	107
Mt. Washington	6267	2026
NEW JERSEY		
Atlantic City	74	23
Newark	31	9
Trenton	170	52
NEW MEXICO		
Albuquerque	5311	1619
Clayton	4972	1515
Roswell	3619	1103
NEW YORK		
Albany	277	84
Binghamton	1638	499
Buffalo	706	215
New York (Central Park)	81	24
New York (La Guardia Airport)	21	6
Rochester	551	168
Syracuse	1398	426
NORTH CAROLINA		
Asheville	2165	660
Cape Hatteras	15	4
Charlotte	769	234
Greensboro	886	270
Raleigh	441	134
Wilmington	28	8
NORTH DAKOTA		
Bismarck	1660	506
Devils Lake	902	274
Williston	1905	581
OHIO		
Akron	1236	377
Akron-Canton Airport	627	191
Cleveland	805	245
Columbus	833	254
Dayton	1000	305
Mansfield	1312	400
Toledo	692	211
Youngstown	1186	361
OKLAHOMA		
Oklahoma City	1241	378
Tulsa	1196	365
OREGON		
Astoria	22	7
Burns	4190	1277
Eugene	373	114
Medford	4056	1236
North Bend	1529	466
Pendleton	1495	456
Portland	77	23
Salem	209	64
Sexton Summit	841	256
PENNSYLVANIA		
Allentown	385	117
Erie	737	225
Harrisburg	351	107
Philadelphia	28	9
Pittsburgh	1225	373
Reading	1017	334
Scranton	918	289
Williamsport	525	160
RHODE ISLAND		
Block Island	108	33
Providence	62	19
SOUTH CAROLINA		
Charleston	18	5
Columbia	225	69
Greenville	971	296
SOUTH DAKOTA		
Aberdeen	1300	396
Huron	1289	393
Rapid City	3168	966
Sioux Falls	1427	435
TENNESSEE		
Bristol	1525	465
Chattanooga	688	210
Knoxville	980	299
Memphis	284	87
Nashville	605	184
Oak Ridge	914	279
TEXAS		
Abilene	1753	534
Amarillo	3601	1099
Austin	621	189
Brownsville	20	6
Corpus Christi	44	13
Del Rio	1076	328
Dallas	1027	313
El Paso	3916	941
Fort Worth	51	16
Houston Intercontinental	108	33
Lubbock	3241	988
Midland	2862	872
Port Arthur	22	7
San Antonio	1908	581
Victoria	791	242
Waco	117	36
Wichita Falls	508	155
Abilene-Dyess AFB	1030	314
UTAH		
Milford	5033	1534
Salt Lake City	4227	1288
Wendover	4239	1292
VERMONT		
Burlington	330	101
VIRGINIA		
Lynchburg	941	286
Norfolk	11	3
Richmond	177	54
Roanoke	1176	358
WASHINGTON		
Olympia	200	61
Quillayute	205	62
Seattle-Tacoma	140	43
Spokane	28	9
Stampede Pass	2365	721
Walla Walla	3967	1209
Wenatchee	991	302
Yakima	1066	325
WEST INDIES		
San Juan, P. R.	62	19
WEST VIRGINIA		
Beckley	2514	766
Charleston	951	290
Elkins	1997	608
Huntington	838	255
Parkersburg	637	194
WISCONSIN		
Green Bay	702	214
LaCrosse	672	205
Madison	866	264
Milwaukee	693	211
WYOMING		
Casper	5290	1612
Cheyenne	6141	1872
Lander	5558	1694
Sheridan	3968	1209

indicates Rural, sites.

These are the elevations of the barometer (in feet a[illegible] values per[illegible]

"Climatological Data" ta[illegible] monthly publication CLIMATOLOGICAL [illegible] NATIONAL [illegible]

GENERAL SUMMARY OF TORNADOES, 1976

Henry Vigansky
National Oceanic and Atmospheric Administration
Environmental Data Service
National Climatic Center

A total of 835 tornadoes was reported in the United States and its territories. Overall property damage was estimated at about $300 million. The tornadoes occurred on 169 days, causing 44 deaths and 1,215 injuries. Twenty-nine of the storms were killer tornadoes. The following nine states reported no tornadoes during 1976: Alaska, Hawaii, Idaho, Nevada, Oregon, Rhode Island, Utah, Vermont, and Washington.

Tornadoes damaged or destroyed about 1,600 mobile homes, injuring 369 people, and killing 18.

The following three tables show new monthly tornado records, dates and locations of killer tornadoes, and state border crossings:

MONTHLY TORNADO RECORDS

Month	State	New Record	Previous Record
January	Indiana	3	2 (1965)
February	North Carolina	7	4 (1960)
	Virgin Islands	1	0
March	United States	180	124 (1961)
	Alabama	25	10 (1963)
	Illinois	12	9 (1961)
	Indiana	22	10 (1961)
	Maryland	2	1 (1972)
	Michigan	18	1 (1968)
	Mississippi	21	13 (1975)
	New York	2	0
	Pennsylvania	8	1 (1975)
April	Colorado	4	3 (1971)
May	Arizona	3	1 (1958)
	Colorado	16	12 (1975)
	Georgia	9	8 (1973)
June	New York	6	3 (1969)
	North Dakota	38	14 (1965)
	Wyoming	12	11 (1962)
July	Pennsylvania	10	4 (1970)
	Wyoming	5	4 (1973)
September	California	6	0
	Colorado	4	3 (1973)
	Kentucky	2	1 (1973)
October	North Carolina	5	3 (1975)

GENERAL SUMMARY OF TORNADOES

KILLER TORNADOES

Date		State	County	Total Deaths
February	17	Arkansas	Ashley	3
	18	Mississippi	Leake	1
	21	Missouri	Butler	1
March	29	Arkansas	Lonoke	5
	29	Arkansas	Cleburne	1
	12	Illinois	Cook	2
	12	Indiana	Jasper	1
	12	Indiana	Allen	1
	20	Michigan	Oakland	1
	20	Michigan	Macomb	1
	30	Michigan	Ogemaw	1
	20	Mississippi	Webster	1
	29	Mississippi	Madison	3
	26	Missouri	Newton	1
	26	Oklahoma	LeFlore	1
	26	Oklahoma	LeFlore	2
April	20	Louisiana	Natchitoches	1
May	15	North Carolina	Robeson	3
	30	Oklahoma	Creek	2
	15	South Carolina	Richland	1
	26	Texas	Bell	2
June	13	Illinois	Cook	2
	14	Minnesota	LeSueur	1
July	11	Pennsylvania	Jefferson	1
	11	Pennsylvania	Westmoreland	1
August	12	Florida	Pinellas	1
September	26	Indiana	Jackson	1
	26	Indiana	Jefferson	1
	26	Kentucky	Grant	1

STATE BORDER CROSSINGS

February 17	Texas	into	Louisiana
March 12	Illinois	into	Indiana
March 12	Indiana	into	Michigan
March 20	Louisiana	into	Arkansas
April 14	Kansas	into	Nebraska
May 13	Mississippi	into	Tennessee

Some of the most severe or unusual storms are described briefly in the following paragraphs:

January. Tornado activity was relatively light during this month with 12 tornadoes reported in five states. The most devastating occurred on January 25 in Donaldson, Louisiana. Numerous homes were destroyed or damaged within a 12-block area and the Junior High School received extensive damages. Seven people were injured, and four of them required hospitalization.

GENERAL SUMMARY OF TORNADOES

February. A mini-tornado touched down on the island of Saint Croix in the Virgin Islands on the morning of February 16. Damage was confined to a botanical garden and the roof of a supermarket in the Frederiksted area.

On the 17th, a tornado touched down four miles northeast of Wilmont, Arkansas, and left a path of destruction to three miles north of Lake Village, Arkansas. This storm destroyed 16 homes, seven mobile homes, five large implement buildings, and one church, while 35 houses sustained minor damage. It was the first killer tornado of the 1976 season, taking the lives of three people and injuring 46 others.

In the early morning hours of the 18th, two tornadoes left devastating paths of destruction through Hinds, Leake, and Neshoba Counties, Mississippi, causing approximately $4 million worth of property and crop damage. The storms were responsible for one death and 77 injuries.

Shortly after midnight on the 21st, five tornadoes were reported in four southern Missouri counties. These storms caused extensive property damage, 23 injuries, and one death.

March. This month exceeded the all-time March record of 124 tornadoes established in 1961. One hundred eighty tornadoes were reported on 18 days, injuring 744 and killing 21 people. On the 20th and 21st, 67 of these storms occurred in the following states: Alabama 14, Arkansas 1, Delaware 1, Florida 3, Illinois 5, Indiana 8, Kentucky 1, Louisiana 3, Maryland 2, Michigan 5, Mississippi 9, Missouri 2, New York 1, Ohio 2, Pennsylvania 7, Tennessee 1, and Virginia 2.

A tornado touched down just north of Little Rock Air Force Base on the 29th and moved east-northeast through Cabot, Arkansas. Cabot received the brunt of destruction, with 50 business establishments, 54 mobile homes, eight homes, and one apartment complex destroyed. One child was killed in a mobile home, four other people lost their lives in the downtown area, and 64 were injured. Property damage was estimated at about $8 million.

At 2:03 p.m. on March 29, a tornado struck Canton, Mississippi, killing three people and injuring 177. Property damage was in excess of $11 million. Seventy-six homes, 58 mobile homes, 14 service buildings, two grain storage bins, and 132 pieces of machinery were either destroyed or sustained major damage. Two fatalities occurred in a mobile home and one in a service building.

At about the same time (2:05 p.m.) another twister touched down 15 miles west-southwest of Hazlehurst and left a 107-mile path of destruction to about one mile northeast of Meridian, Mississippi. Property destroyed or damaged included: 486 homes, 245 mobile homes, 251 commercial buildings, two poultry houses, one country club, one rest home, and one light aircraft. Damage to property was estimated at $7.8 million and, in addition, $2.4 million worth of crops, cattle, and poultry were destroyed. Fortunately, this giant storm caused no fatalities and only eight injuries.

GENERAL SUMMARY OF TORNADOES

Michigan reported 18 tornadoes on four days. Eighty-four people were injured and three lives were lost. These were the first fatalities in March since 1920 in this state.

April. Tornadic activity dropped back to normal and Texas accounted for 54 of the 113 tornadoes reported.

The only tornado death recorded this month was in Natchitoches, Louisiana, on the 20th (the 24-year mean is 40). Two trailer parks bore the brunt of the storm, which destroyed 24 mobile homes and damaged 15 others. Several businesses sustained minor damage.

At about 5:30 p.m. on the 19th, an isolated thunderstorm produced a tornado four miles northwest of Brownwood, Texas, that destroyed a motorcycle race track, one car, and several outbuildings. The storm then moved northeastward and destroyed the A.I. Fabis pecan orchard and a row of four farm houses in which 11 people were injured. Mr. Fabis narrowly escaped death when the storm blew his frame house away. Luckily, Mr. Fabis, with a firm grip on the bathtub, remained with the foundation. Before the storm subsided it demolished a set of T-shaped hangars and six airplanes at the Brownwood Airport.

May. Kansas reported no tornadoes during this month. The previous zero-count was in 1925, and the average tornado count for this month is 15.

On May 15, a tornado touched down near Rowland and moved north-northeast to near Pembroke, North Carolina. The storm wrecked the Locklear mobile home, killing three children ranging in age from 15 months to nine years. The children's mother and another child were injured and admitted to a local hospital in serious condition. Another mobile home near the Locklear's was demolished, but its lone occupant was unharmed.

On the 26th, a tornado touched down near Lake Belton, Texas, and ripped through the Westcliff Park residential area causing destruction and/or considerable damage to 41 houses, 27 trailers, and one commercial building. The bodies of Mr. and Mrs. Charles Smith of the Lakeview Mobile Home Park were found side by side 150 feet from where their trailer had been. Personal effects and trailer debris were found up to 1.5 miles from the original site. Casualties and injuries were greatly minimized because of timely severe storm warnings, and most dwellers of the mobile homes took shelter elsewhere.

June. On the 13th, a killer tornado struck Lamont and traveled a J-shaped path to just south of Downers Grove, Illinois, killing two people and injuring 23. On the eastern edge of Lamont wind speeds were estimated between 207-260 miles per hour. One hundred seventy homes were damaged, including 87 that were totally destroyed. The storm passed over the Argonne National Laboratory and ripped off portions of a roof from a building housing a nuclear reactor. Property damage was estimated around $13 million.

GENERAL SUMMARY OF TORNADOES

July. Late in the afternoon of the 11th, several tornadoes were reported in western Pennsylvania, causing extensive damage to homes, mobile homes, farm buildings, commercial establishments, and crops. Two people lost their lives and 25 others received injuries.

August. In Largo, Florida, a tornado stayed on the ground for seven minutes and destroyed or caused severe structural damage to 115 mobile homes. One woman was killed and 15 people were injured in this mobile home disaster. Five other people were injured when the car in which they were riding was blown off the road. This was the first killer tornado ever recorded in Florida during the month of August.

September. Six tornadoes were reported in California. This exceeds the all-time monthly record since statistics have been kept. Indiana and Kentucky reported three tornado deaths, which were the first ever recorded for the month of September in these two states.

October-December. Tornado activity was relatively light during the last quarter of the year. The last tornado was reported on December 7 near Delray Beach, Florida, and brought the 1976 tornado season to a close.

Additional information is presented in the following tables and charts. Over the years, the continuing efforts of the National Severe Storms Forecast Center, National Weather Service Forecast Offices, and the National Climatic Center have resulted in several corrections to the previous totals.

TORNADO SUMMARY 1976

STATE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
ALABAMA													
Number	1		2		2		1	1					7
Days	1		2		1		1	1					10
Deaths													0
Injuries	1		60										61
ALASKA													
(None)													
ARIZONA													
Number					3		2	1					6
Days					1		1	1					3
Deaths													0
Injuries													0
ARKANSAS													
Number		6	11	7	3	1	1	1					30
Days		2	3	2	1	1	1						10
Deaths		3	4										7
Injuries		46	78				2						126
CALIFORNIA													
Number									6				6
Days									1				1
Deaths													0
Injuries													0
COLORADO													
Number				4	16	13	1	4	4				42
Days				3	3	2	1	2	1				12
Deaths													0
Injuries								1					1
CONNECTICUT													
Number						1							1
Days						1							1
Deaths													0
Injuries													0
DELAWARE													
Number			1			1							2
Days			1			1							2
Deaths													0
Injuries			1										1
DISTRICT OF COLUMBIA													
(None)													
FLORIDA													
Number	3	1	10	4	18	9	10	5	5	1		1	67
Days	3	1	3	2	12	7	10	5	4	1		1	49
Deaths								1					1
Injuries				2	3			21	6				32
GEORGIA													
Number		3	6	1	9			1					20
Days		2	1	1	3			1					8
Deaths													0
Injuries					8								8
HAWAII													
(None)													
IDAHO													
(None)													
ILLINOIS													
Number		2	12	3	2	4	3	1					27
Days		1	4	2	2	2	1	1					13
Deaths			2			2							4
Injuries		1	91	2		23		1					118

STATE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
INDIANA													
Number	3	1	4			5	4	1	3				37
Days	1	1	4			5	4	1	3				19
Deaths			4										4
Injuries			61			1			12				74
IOWA													
Number				2	1	10	1	2					16
Days				2	1	4	1	2					10
Deaths													0
Injuries						17							17
KANSAS													
Number				7		3			4				14
Days				4		3			1				10
Deaths													0
Injuries				4									4
KENTUCKY													
Number			1	1		1			2				5
Days			1	1		1			1				4
Deaths									1				1
Injuries			10			1							11
LOUISIANA													
Number	3	2	6	1	1		1						14
Days	1	1	3	1	1		1						7
Deaths			1										1
Injuries	8	3	35	27									73
MAINE													
Number								1					1
Days								1					1
Deaths													0
Injuries								2					2
MARYLAND													
Number			2	1				1					4
Days			1	1				1					3
Deaths													0
Injuries													0
MASSACHUSETTS													
Number					1								1
Days					1								1
Deaths													0
Injuries													0
MICHIGAN													
Number			18	4	1	7	3						33
Days			4	3	1	3	3						14
Deaths			3										3
Injuries			84	1			7						92
MINNESOTA													
Number				2		8	1						11
Days				2		3	1						6
Deaths						1							1
Injuries						16	1						17
MISSISSIPPI													
Number			3	21	3	4	3						34
Days			2	6	1	3	2						14
Deaths			1	4									5
Injuries			77	207	3	5	2						294
MISSOURI													
Number			5	5	1		1						12
Days			1	2	1		1						5
Deaths			1	1									2
Injuries			23	5									28

STATE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
MONTANA													
Number													
Days													
Deaths													
Injuries													
NEBRASKA													
Number													
Days													
Deaths													
Injuries													
NEVADA													
Number													
NEW HAMPSHIRE													
Number													
Days													
Deaths													
Injuries													
NEW JERSEY													
Number													
Days													
Deaths													
Injuries													
NEW MEXICO													
Number													
Days													
Deaths													
Injuries													
NEW YORK													
Number													
Days													
Deaths													
Injuries													
NORTH CAROLINA													
Number													
Days													
Deaths													
Injuries													
NORTH DAKOTA													
Number													
Days													
Deaths													
Injuries													
OHIO													
Number													
Days													
Deaths													
Injuries													
OKLAHOMA													
Number													
OREGON													
Number													
PENNSYLVANIA													
Number													
Days													
Deaths													
Injuries													
PUERTO RICO													
(None)													
RHODE ISLAND													
(None)													
SOUTH CAROLINA													
Number													
Days													
Deaths													
Injuries													
SOUTH DAKOTA													
Number													
Days													
Deaths													
Injuries													
TENNESSEE													
Number													
Days													
Deaths													
Injuries													
TEXAS													
Number													
Days													
Deaths													
Injuries													
UTAH													
(None)													
VERMONT													
(None)													
VIRGINIA													
Number													
Days													
Deaths													
Injuries													
VIRGIN ISLANDS													
Number													
Days													
Deaths													
Injuries													
WASHINGTON													
(None)													
WEST VIRGINIA													
Number													
Days													
Deaths													
Injuries													
WISCONSIN													
Number													
Days													
Deaths													
Injuries													
WYOMING													
Number													
Days													
Deaths													
Injuries													
TOTAL													
Number													
Days													
Deaths													
Injuries													

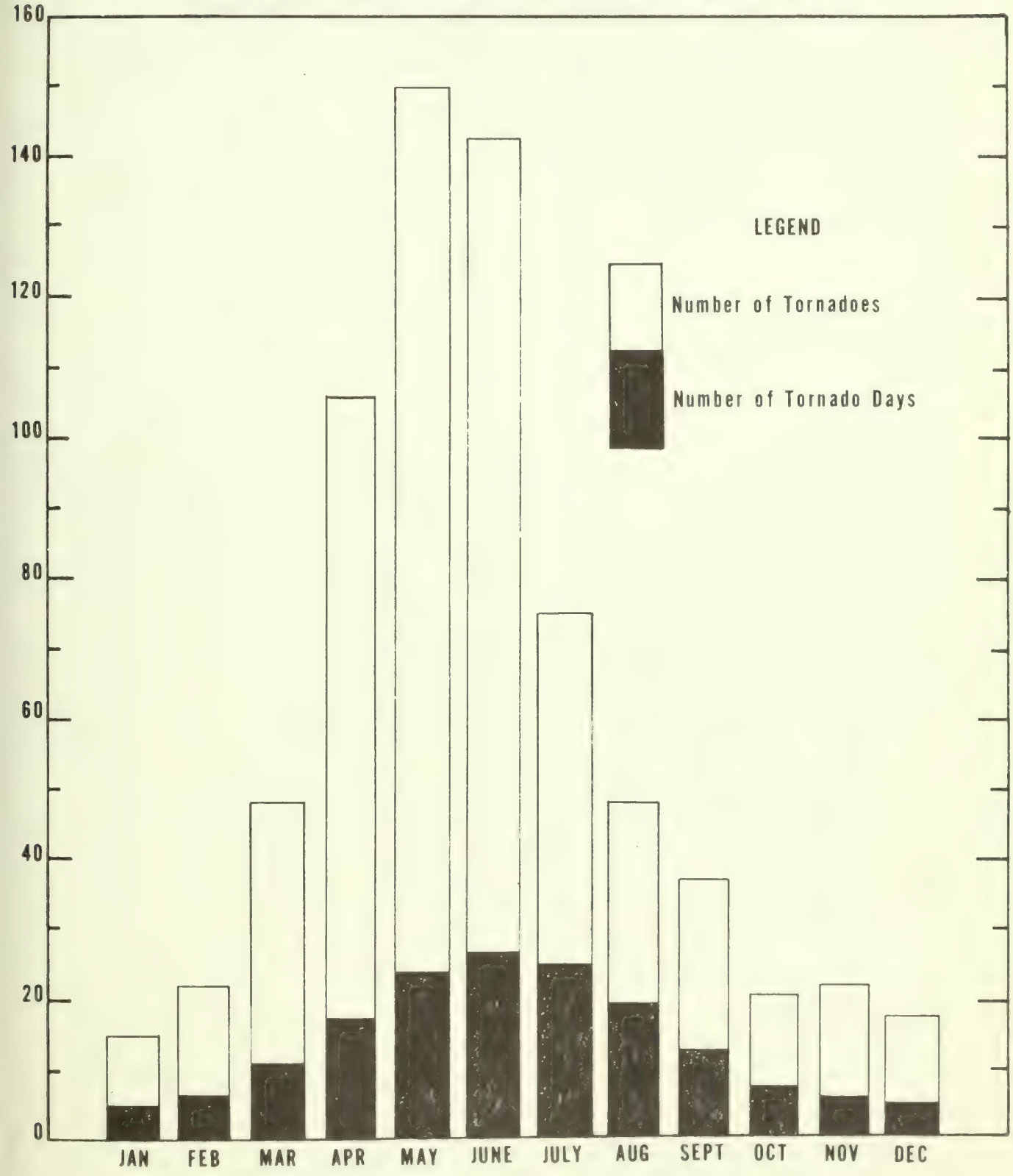
* Information from reporting agencies incomplete.
† Estimated based on experience and reasonable expectation.

NUMBER OF TORNADOES, TORNADO DAYS, AND DEATHS BY MONTHS, 1953-76

YEAR	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER			ANNUAL		
	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS
1953	14	5	1	16	4	5	40	10	4	42	16	34	94	21	161	111	14	244	31	19	0	24	15	0	5	4	0	6	4	0	12	6	1	11	5	44	421	136	516
1954		1	0	17	4	3	83	13	10	112	33	2	161		9	107	26	5	45	23	0	48	21	1	11	10	3	14	8	2	17	4	1	5	3	0	556	160	38
1955			0	4	1	1	43	9	5	90	18	7	147	26	103	154	28	5	49	21	5	33	18	0	19	9	2	23	7	1	10	4	1	5	2	0	593	150	118
1956			0	17	10	1	7	7	1	95	15	67	79	24	4	65	13	0	91	26	1	43	20	2	16	10	0	29	8	0	7	6	0	9	4	0	504	155	83
1957	17	5	13	5	3	0	35	7	1	216	21	33	207	26	87	147	15	14	55	19	0	30	14	0	17	10	2	18	11	2	54	11	25	38	4	19	856	154	192
1958	1	1	1	20	4	13	15	11	3	76	14	4	125	21	0	127	17	47	121	30	1	46	20	1	14	14	1	9	4	4	45	6	0	1	1	0	564	166	69
1959	16	4	3	20	5	21	43	11	9	90	19	1	226	27	5	73	15	2	63	24	0	38	15	0	58	15	14	24	14	1	11	4	0	1	1	0	604	156	59
1960	3	4	1	4	1	1	2	10	0	70	20	7	201	26	34	124	27	3	43	22	0	47	23	1	22	13	0	18	10	1	25	6	0	1	1	0	616	172	46
1961	1	1	0	61	5	1	124	17	7	74	19	3	137	25	33	107	23	2	77	27	0	27	16	0	53	16	15	14	5	0	30	7	1	16	5	0	697	169	51
1962	1	1	1	25	7	3	37	9	17	41	8	1	200	22	3	171	29	0	78	26	0	51	21	6	24	11	0	11	10	0	5	4	0	2	2	0	657	152	28
1963	14	5	1	6	3	0	43	17	8	64	14	16	71	21	1	91	22	1	64	25	0	26	13	2	23	13	3	13	5	0	15	6	0	3	1	0	464	141	51
1964	14	3	11	2	1	0	36	11	6	157	23	15	135	20	16	136	24	3	62	23	0	29	23	2	25	10	0	22	4	2	17	4	0	14	5	1	704	166	73
1965	1	11	0	32	1	0	34	4	2	132	21	264	205	25	17	147	24	6	66	6	0	61	23	1	64	21	0	16	4	1	34	6	5	7	4	0	908	161	396
1966	1	1	0	25	5	3	12	6	55	80	16	12	92	17	0	126	26	19	100	27	3	56	21	0	22	12	0	29	6	8	10	3	0	11	3	0	525	150	99
1967	39	4	7	8	5	0	42	14	3	149	18	73	116	25	3	210	28	6	90	25	1	38	16	2	139	16	5	36	7	4	6	5	0	61	10	10	926	173	114
1968	5	3	1	22	4	0	24			102	15	41	145	26	72	136	27	11	56	20	2	60	23	2	15	14	0	14	9	0	44	12	3	5	2	1	660	171	131
1969	5	1	3	5	2	0	8	4	1	65	15	2	145	25	4	137	28	7	39	27	0	69	21	19	21	11	0	26	10	0	5	3	0	4	2	1	608	155	66
1970	4	2	0	16	3	0	22	11	2	117	16	23	95	19	26	134	24	6	81	26	3	55	21	0	54	20	0	53	14	6	10	4	0	14	5	0	655	171	75
1971	18	7	1	83	10	131	43	13	3	75	14	11	166	24	7	199	32	1	100	30	1	51	21	0	47	15	0	38	12	0	16	7	0	56	9	2	888	192	156
1972	33	10	5	7	4	0	69	17	0	96	20	16	140	27	0	114	25	2	115	29	0	51	23	7	49	19	0	34	10	0	17	4	2	5	6	0	741	194	27
1973	33	7	1	10	4	0	80	16	17	150	22	10	240	26	35	224	26	2	80	26	0	51	13	4	69	22	3	25	11	0	21	11	12	44	12	3	1102	208	87
1974	4	2	2	23	3	0	38	12	1	269	32	313	144	23	10	134	26	31	54	19	0	17	6	4	15	11	1	45	11	4	13	5	0	4	5	0	947	184	361
1975	12	2	1	45	12	7	84	16	12	108	20	13	192	30	5	146	26	6	79	26	1	59	25	1	34	17	0	12	7	0	40	8	0	11	4	1	920	204	60
1976	12	6	1	27	6	5	180	18	21	113	23	1	195	24	8	164	26	3	84	29	2	38	18	1	35	15	3	11	5	0	6	0	0	1	1	0	935	169	44
1953-76																																							
TOTAL	317	108	85	522	142	141	1184	275	307	2647	483	671	3696	578	838	3339	644	414	1807	597	71	1145	483	48	846	328	61	537	192	53	541	141	49	429	119	84	17001	4119	2817
MEAN	15	5	4	25	6	8	49	11	9	106	19	40	150	24	7	142	26	17	75	25	1	49	20	2	37	14	2	22	8	2	23	6	2	18	5	4	708	167	117

AVERAGE NUMBER OF TORNADOES AND TORNADO DAYS EACH MONTH IN THE UNITED STATES

(BASED ON 17,001 TORNADOES THAT OCCURRED FROM 1953 – 1976)



NUMBER OF TORNADOES, TORNADO DAYS, DEATHS, AND RESULTING LOSSES BY YEARS, 1916-76

YEAR	Number Tornadoes	Tornado Days	Total Deaths	Most Deaths in Single Tornado	Total Property Losses †	PROPERTY LOSS FREQUENCY *		
						Category 5	Category 6	Category 7 and Over
1916	90	36	150	30	6	7	1	0
1917	121	38	551	101	7	21	9	0
1918	81	45	136	36	7	20	5	0
1919	64	35	206	59	7	10	2	0
1920	87	50	499	87	7	14	10	0
1921	105	55	202	61	7	22	3	0
1922	108	64	135	16	7	27	5	0
1923	102	59	110	23	6	21	1	0
1924	130	57	376	85	7	26	11	1
1925	119	65	794	689	7	34	2	1
1926	111	57	144	23	6	28	0	0
1927	163	62	540	92	7	42	9	1
1928	203	79	95	14	7	40	7	0
1929	197	74	274	40	7	48	4	0
1930	192	72	179	41	7	38	6	0
1931	94	57	36	6	6	14	1	0
1932	151	67	394	37	7	23	1	1
1933	258	96	362	34	7	46	9	0
1934	147	77	47	6	6	10	3	0
1935	180	77	71	11	6	29	0	0
1936	151	71	552	216	7	17	5	1
1937	147	75	29	5	6	24	0	0
1938	213	76	183	32	7	29	6	0
1939	152	75	91	27	7	21	3	0
1940	124	62	65	18	7	13	2	0
1941	118	57	53	25	6	24	1	0
1942	167	66	384	65	7	42	10	0
1943	152	61	58	5	7	28	8	0
1944	169	68	275	100	7	50	9	0
1945	121	66	210	69	7	21	10	1
1946	106	65	78	15	7	29	7	0
1947	165	78	313	169	7	46	7	1
1948	183	68	139	33	7	62	11	2
1949	249	80	211	58	7	54	13	0
1950	200	88	70	18	7	47	9	0
1951	262	113	34	6	7	35	11	2
1952	240	98	229	57	7	53	19	0
1953	421	136	515	116	8	63	18	7
1954	550	160	36	6	7	63	8	1
1955	593	152	126	80	7	74	13	1
1956	504	155	83	25	7	83	24	1
1957	856	154	192	44	8	129	26	3
1958	564	166	66	19	7	70	8	1
1959	604	156	58	21	7	70	4	1
1960	616	172	46	16	7	65	11	1
1961	697	169	51	16	7	103	21	1
1962	657	152	28	17	7	51	10	0
1963	464	141	31	5	7	77	15	1
1964	704	156	73	22	7	113	17	5
1965	906	181	296	44	8	126	30	11
1966	585	150	98	58	8	79	13	4
1967	926	173	114	33	8	125	33	8
1968	660	171	131	34	8	82	26	6
1969	608	155	66	32	8	98	16	3
1970	653	171	72	26	8	97	24	6
1971	888	192	156	58	8	71	30	5
1972	741	194	27	6	8	100	28	1
1973	1102	206	87	7	9	219	67	9
1974	947	184	361	34	9	166	82	25
1975	920	204	60	9	9	189	31	11
1976	835	169	44	5	8	145	41	5
Means: 1953-76	708	161	117	---	---	102	25	5

NOTE: - - The above estimated losses are based on values at time of occurrence.

* Storm damages in categories:

5. $50,000 to $500,000
6. $500,000 to $5 million
7. $5 million to $50 million
8. $50 million to $500 million
9. $500 million and over.

*Number of times property losses reported in Storm Data in Categories 5, 6, 7 and over.

NUMBER OF TORNADOES, TORNADO DAYS, AND DEATHS BY STATES, 1953-76

STATE	TOTAL		GREATEST				TOTAL	AVERAGE	DEATHS TOTAL	AVERAGE	Sq Mi
[illegible]	470	20	45	1973+		1956 3.80	256	11	179	7	35
Alaska	1	0	1	1959		1976+ .00	1	0	0	0	
[illegible]	92	4	17	1972	0	1965+ .34	76	3	3	0	
Arkansas	[illegible]	18	50	[illegible]		1969+ 3.47	232	10	117	5	22
[illegible]	68	3	10	1958	0	1968+ .18	49	2	0	0	0
Colorado	348	15	[illegible]	1976	1	1959 1.39	234	[illegible]	2	0	0
Connecticut	40	2	8	[illegible]	0	1969+ 3.33	36	2	1	0	2
[illegible]	21	1	5	1975	0	1974+ 4.25	[illegible]	1	0	0	[illegible]
District of Columbia	0	0	0	-	0	- .00	0	0	0	0	0
Florida	880	[illegible]	97	1975	10	1956 6.26	574	24	46	2	[illegible]
Georgia	511	21	46	1971+	7	1960 3.62	296	12	[illegible]	3	12
[illegible]	15	1	4	1971	0	1976+ .97	12	1	0	0	0
Idaho	33	1	5	1967+	0	1976+ .16	25	1	0	0	0
[illegible]	678	28	107	1974	4	1953 5.01	317	13	122	5	22
Indiana	553	23	48	1973	6	1972+ 6.35	258	11	[illegible]	[illegible]	55
Iowa	615	26	54	1964	7	1956+ 4.55	288	12	41	2	7
Kansas	1122	47	97	1955	14	1976 5.68	507	21	143	6	17
[illegible]	190	[illegible]	34	1974	0	1953 1.96	107	4	98	4	24
[illegible]uisiana	457	19	55	1974	3	1955 3.92	287	12	81	3	17
Maine	67	3	[illegible]	1971	0	1964+ .84	59	2	1	0	0
Maryland	56	2	10	1975	0	1970+ 2.21	50	2	1	0	[illegible]
Massachusetts	102	[illegible]	12	1958	0	1959 5.15	73	3	97	4	117
Michigan	353	15	39	1974	2	1959 2.53	201	8	225	9	39
Minnesota	378	16	34	1968	5	1972 1.87	230	10	69	3	8
Mississippi	531	22	44	1973	5	1964 4.64	283	12	307	13	64
Missouri	716	30	79	1973	6	1953 4.28	340	14	117	5	17
Montana	85	[illegible]	10	1975+	0	1974+ .24	67	3	0	0	0
Nebraska	817	34	78	1975	10	1966 4.41	401	17	44	2	6
Nevada	14	1	4	1964	0	1976+ .05	13	1	[illegible]	0	[illegible]
New Hampshire	56	[illegible]	9	1963	0	1975+ 2.51	50	2	0	0	0
New Jersey	39	2	[illegible]	1973	0	1972+ 2.07	31	1	0	0	0
New Mexico	205	9	18	1972	0	1953 .70	152	6	3	0	0
New York	80	3	8	1976	[illegible]	1953 .67	68	3	2	0	0
North Carolina	260	11	[illegible]	1973	[illegible]	1970 2.06	162	7	21	1	4
North Dakota	354	15	[illegible]	1976	2	1961 2.09	207	9	16	1	2
Ohio	323	13	43	1973	3	1966+ 3.26	184	[illegible]	147	6	36
[illegible]	1326	55	107	1957	28	1976 7.90	563	23	169	7	24
Oregon	23	1	3	1975+	0	1976+ .10	19	1	0	0	[illegible]
Pacific	1	[illegible]	1	1975	0	1976+ .00	1	0	0	0	0
Pennsylvania	159	7	[illegible]	1976	0	1959 1.46	122	5	6	0	1
Puerto Rico	7	0	[illegible]	1969	0	1976+ .85	6	0	0	0	0
Rhode Island	1	0	[illegible]	1972	0	1976+ .34	1	0	0	0	0
South Carolina	220	9	23	1973	1	1970+ 2.95	155	6	24	1	8
South Dakota	544	23	64	1965	1	1958 2.94	280	12	7	0	1
Tennessee	268	11	44	1974	1	1962 2.64	140	6	72	3	17
Texas	2775	116	232	1967	32	1953 4.33	1173	49	314	13	12
Utah	32	1	5	1970+	0	1976+ .16	25	1	0	0	0
Vermont	25	1	[illegible]	1962	0	1976+ 1.08	21	1	0	0	0
Virginia	128	5	22	1975	1	1963+ 1.31	[illegible]	[illegible]	14	1	3
Virgin Islands	[illegible]	0	1	1976	0	1975+ .00	1	0	0	0	0
Washington	[illegible]	1	4	1972	0	1976+ .15	18	1	6	0	1
West Virginia	45	2	6	1974	0	1960+ .78	35	[illegible]	1	0	[illegible]
Wisconsin	415	17	33	1964	3	1953 3.08	232	10	[illegible]	2	[illegible]
[illegible]	163	7	24	1976	0	1970 .69	126	5	[illegible]	0	0
TOTAL: United States	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

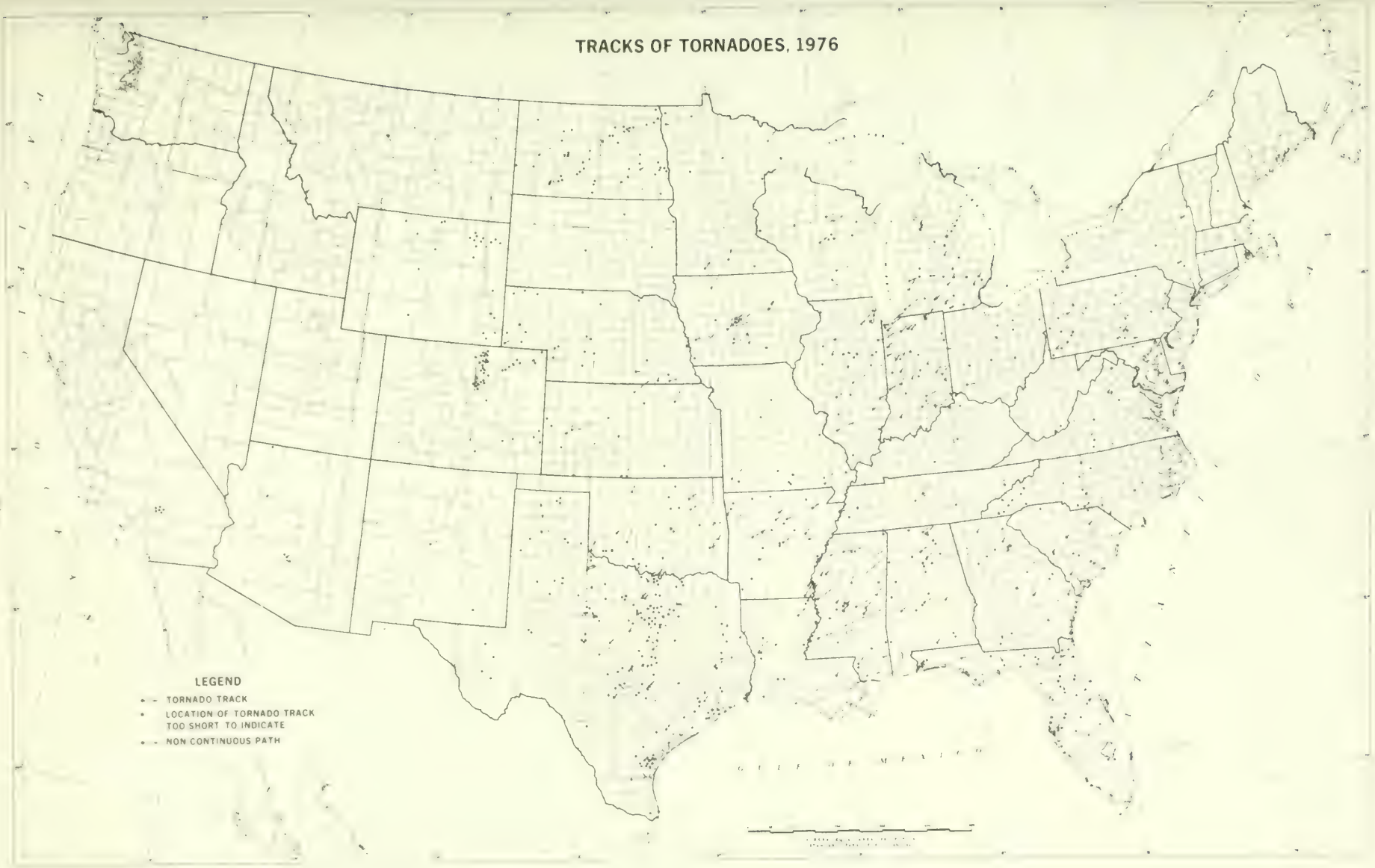
\+ Also in earlier year(s).
* Corrected for boundary-crossing tornadoes.
* Tornado Days for Country as a whole.

\# Mean annual tornadoes per 10,000 square miles.
@ Number of deaths per 10,000 square miles -- 1953-76.

NUMBER OF FUNNEL CLOUDS IN 1976

STATE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
Alabama			12										12
Alaska													0
Arizona							1						1
Arkansas		5	17	13	10	1							46
California													0
Colorado					11	3			1				15
Connecticut			5										5
Delaware										2			2
District of Columbia													0
Florida	1	1		2		48	15	21	9				97
Georgia		2											2
Hawaii	2		3			6		1	4			1	17
Idaho			1		2								3
Illinois			31	11	22	13	7						84
Indiana		2	7			26	6	1	1				43
Iowa				7		13	1	1					22
Kansas			2	1	2	24	1						30
Kentucky						1							1
Louisiana	1		1	3	6								11
Maine													0
Maryland									1				1
Massachusetts													0
Michigan		1	4	8		33	3	6					55
Minnesota								3					3
Mississippi		1	26	3	22								52
Missouri		1					7						8
Montana						9	1	1					11
Nebraska					1	9	7	4					21
Nevada													0
New Hampshire								1					1
New Jersey													0
New Mexico					1	1	1	2					5
New York						8	1						9
North Carolina					1	2							3
North Dakota					1		5	1					7
Ohio	1		7	8	1		78						95
Oklahoma		1	1	10	14	5	1						32
Oregon													0
Pacific													0
Pennsylvania							6						6
Puerto Rico													0
Rhode Island													0
South Carolina					5								5
South Dakota					3	5	10	1					19
Tennessee					1	6							7
Texas			2	69	59	17	52	27	12	2			240
Utah													0
Vermont													0
Virginia			1		1								2
Virgin Islands													0
Washington													0
West Virginia					2		1						3
Wisconsin													0
Wyoming						4							4
TOTAL	5	14	120	135	165	234	204	70	28	4	0	1	980

TRACKS OF TORNADOES, 1976



HAILSTORM LOSSES FOR PAST YEARS

Year	Property (exclusive of crops) *	Crops †	Total †
[illegible]	-	-	-
[illegible]	-	-	-
[illegible]	-	-	7
[illegible]	6	7	7
[illegible]	6	7	7
[illegible]	6	7	7
[illegible]	-	6	6
[illegible]	6	7	7
[illegible]	6	7	7
[illegible]	6	7	7
[illegible]	6	7	7
[illegible]	7	7	8
[illegible]	6	7	7
1946	7	7	7
1947	6	8	8
1948	7	8	8
1949	7	7	7
1950	7	7	7
1951	7	7	8
1952	7	7	7
1953	7	7	7
1954	7	8	8

Year	Property (exclusive of crops) *	Crops †	Total †
1955	7	7	8
1956	7	8	8
1957	7	8	8
1958	7	8	8
1959	6	7	7
1960	7	8	8
1961	8	8	8
1962	9	8	9
1963	8	8	8
1964	8	8	8
1965	8	8	8
1966	8	8	8
1967	8	8	8
1968	8	8	8
1969	8	8	8
1970	8	8	8
1971	7	8	8
1972	7	7	7
1973	7	7	8
1974	7	7	8
1975	7	8	8
1976	7	8	8

* The losses are placed in categories varying from 1 to 9 as follows:

1	Less than $50	4	$5,000 to $50,000	7	$5 million to $50 million
2	$50 to $500	5	$50,000 to $500,000	8	$50 million to $500 million
3	$500 to $5,000	6	$500,000 to $5 million	9	$500 million to $5 billion.

† [illegible] losses are based on value at time of occurrence.

WINDSTORM LOSSES PAST YEARS

(Windstorms other than tornadoes)

Year	Total loss of life	Total property loss †
1916	65	7
1917	25	6
1918	79	7
1919	311	7
1920	12	6
1921	65	7
1922	133	7
1923	68	7
1924	78	7
1925	88	7
1926	357	8
1927	64	7
1928	1,947	8
1929	16	7
1930	49	7
1931	17	7
1932	306	7
1933	156	8
1934	109	7
1935	461	7
1936	121	7
1937	43	7
1938	630	8
1939	60	6
1940	251	7
1941	43	7
1942	88	7
1943	91	7
1944	448	8
1945	85	7
1946	70	7

Year	Total loss of life	Total property loss †
1947	117	8
1948	52	8
1949	102	8
1950	210	8
1951	289	8
1952	137	8
1953	118	8
1954	292	9
1955	301	8
1956	196	8
1957	553	8
1958	129	8
1959	145	7
1960	85	8
1961	64	8
1962	134	9
1963	54	9
1964	64	9
1965	107	9
1966	71	8
1967	48	8
1968	49	8
1969	194	9
1970	64	8
1971	76	8
1972	103	8
1973	80	8
1974	30	9
1975	103	8
1976	127	8
	Total 10,476	

* The losses are placed in categories varying from 1 to 9 as follows:

1	Less than $50	4	$5,000 to $50,000	7	$5 million to $50 million
2	$50 to $500	5	$50,000 to $500,000	8	$50 million to $500 million
3	$500 to $5,000	6	$500,000 to $5 million	9	$500 million to $5 billion.

† [illegible] losses are based on value at time of occurrence.

NORTH ATLANTIC TROPICAL CYCLONES, 1976

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North Atlantic waters were the setting for eight named tropical cyclones during the 1976 hurricane season. Six of these reached hurricane force, and three systems were identified as subtropical storms. Tracks of the tropical and subtropical cyclones, respectively, are shown. Statistical summaries are given in Tables 1 and 2.

Tropical cyclone activity was near normal this season, as the annual average for the past 30 years is nine storms, including six hurricanes. Also, mariners had to contend with 26 hurricane days for the second consecutive year. This compares with a yearly average of 29 hurricane days over the past 2 decades.

Examination of the tracking chart reveals that there were no tropical cyclones in either the Caribbean or Gulf of Mexico. This lack of activity in both bodies of water in a single season is very unusual and has occurred during only one other year (1962) since the turn of the century.

Another feature of the 1976 season concerns the tracks of hurricanes Emmy and Frances. These storms recurved towards the east at extremely low latitudes. In fact, this southern latitude of recurvature for both storms is unprecedented so early in the season.

Belle and Dottie made landfall along the coast of the United States, although Dottie barely qualified as a tropical storm. This was the first time since 1972 that more than one storm has struck the United States.

There were seven reports of hurricane-force winds from four different ships, and these were all taken during Emmy or Frances. The simultaneous existence of hurricanes Emmy and Frances resulted in several ships reporting gale-force winds from both storms.

Timely ship observations continue to play a vital role in the analysis and detection program at the National Hurricane Center. A case in point this season is tropical storm Anna. This system was upgraded to storm status on the basis of a report received from the POINTE ALLEGRE.

Anna originated late in July as a subtropical low-pressure system southeast of Bermuda. By July 28, this low was sufficiently well organized to be identified as a subtropical depression. Upgrading to subtropical storm status occurred on the 30th when the POINTE ALLEGRE passed through the storm.

By this time, the storm was moving northeastward and acquiring tropical characteristics. It was named tropical storm Anna later on the 30th and continued toward the Azores. Weakening, Anna began a slow counterclockwise loop through the Azores and became extratropical on August 6.

Anna's minimum pressure was 999 mb and maximum sustained winds were 45 kn on August 2. The Azores received only fringe effects from the storm with all island wind reports below gale force.

HURRICANE BELLE, AUGUST 6-10

The forerunner of Belle was a tropical wave crossing the Atlantic in the trade wind belt during late July and early August. Cloudiness associated with this system reached a position just east of the northern Bahamas on August 5. A tropical depression formed in this location on the next day.

The depression strengthened, becoming a tropical storm at 0000 on the 7th and a hurricane at 1800 on the same day. The COLUMBUS NEW ZEALAND, just north of the storm's center, was the first ship to report gale-force winds. By the 8th, Belle was moving northward at 20 to 25 kn. She made landfall at 1000 on the 10th on southern Long Island. During the last 24 hours prior to landfall, five different ships reported gale-force winds or higher with 60 kn from the EXXON BALTIMORE off the North Carolina coast.

Belle's maximum strength was attained early on August 9 while she was 250 miles south of Cape Hatteras. Sustained winds were 105 kn, and minimum sea level pressure was 957 mb.

While moving northward, parallel to the U.S. East Coast, Belle affected several ocean observing platforms. NOAA buoy EB15 (32°N, 75.2°W) was almost directly in the path of the storm. Maximum winds reported from this buoy were 60 kn at 0600 on the 9th, but a pressure was not available. It is interesting that this wind measurement is based on a several-minute average; the fastest mile was probably considerably higher than 60 kn.

NOAA buoy EB41 (38.7°N, 73.6°W), also in the path of Belle, measured only gale-force winds. OWS HOTEL (38°N, 71.0°W) was well east of the track, and it also reported gales.

By landfall, Belle's maximum sustained winds were 65 kn and minimum pressure 980 mb. Hence, she decreased from a major, dangerous hurricane to a minimal one during the 24 hours prior to moving inland.

One explanation for this weakening is that Belle's northward motion remained at speeds less than 25 kn. Therefore, more time was available for the storm to travel over the colder waters of the Atlantic north of the Gulf Stream, which veers eastward away from the coast just north of Cape Hatteras. Most of the major

storms that have affected the northeastern United States did not have as much time over colder water and accelerated to speeds higher than Belle.

This was fortunate for residents of the warning area. A not-so-fortunate side effect was that many of these residents may have been lulled into a false sense of security, if they based their hurricane preparedness on this single experience.

Wind damage was minimal. Maximum gust of 80 kn were reported along the coast of New Jersey and on Long Island.

Tides were mainly 3 feet above normal along the affected coast, with some below-normal tides from New Jersey southward caused by an offshore wind component. Battery Park on Manhattan Island reported 4.5 feet above normal, and higher tides were likely on southern Long Island.

Rainfall of 4 to 5 inches was common during Belle's passage, and this extended inland to the mountains of New England. Stream flooding and flooded roads occurred, but crop damage, although significant, was less than anticipated.

Five fatalities have been ascribed to the storm. It is estimated that one-half million people evacuated in anticipation of the danger of Belle's storm surge. The dollar damage estimate is $100 million.

HURRICANE CANDICE, AUGUST 18-24

The disturbed weather which developed into Candice was detected on satellite pictures as early as August 11, 500 miles southeast of Bermuda. By the 18th, this system had developed into a tropical depression and had moved to about 200 miles west of Bermuda.

Intensification ensued and the depression was named tropical storm Candice later on the same day. It moved northeastward and weakened a little on the 19th. The VALVANUZ, northwest of the storm's center, and the CHEBRON NEDERLAND to the northeast both encountered gales late on the 19th.

The storm intensified again on the next day, and it reached hurricane status on the 21st. During this period, several ships were affected by Candice. The MANCHESTER VIGOUR reported 50-kn winds three separate times on the 20th along with a maximum sea height of 18 feet and 21-foot swells. The BAKAR experienced 32-foot waves on the 21st and 45-kn steady winds at a position slightly southwest of the storm's center.

Maximum strength was reached on August 22 as the pressure fell to 964 mb and winds reached 80 kn. On the 24th, the hurricane was overtaken by a cold front east of Cape Race, Newfoundland. It quickly lost its identity as a tropical system while accelerating northeastward over the open North Atlantic.

TROPICAL STORM DOTTIE, AUGUST 17-21

As can be seen from the tracking chart Dottie did not travel over much open water and did not constitute a significant problem for marine interests. Only three ships reported gale-force winds in association with this storm; however, four deaths resulted when a fishing boat sank on August 19 near Grand Bahama Bank in the Bahama Islands.

The low which became Dottie formed northwest of Key West on August 17. It drifted east-northeastward for 24 hours and then accelerated across southern Florida. It was named on the 19th after reaching the Atlantic near Palm Beach. Post analysis indicated that storm strength was attained while the system was still in the Florida Keys, and the official track reflects this adjustment.

Over the Atlantic, the storm moved due north for 24 hours and went inland near Charleston, SC, late on the 20th.

Reconnaissance aircraft measured the system's maximum strength at 0200 on the 20th with 996 mb and 45 kn. Weakening occurred thereafter, and Dottie was barely of storm strength at landfall. Tides ranged up to 3.5 feet above normal from northern Florida through the Carolinas. Significant rainfall includes 7.78 inches at Carolina Beach, NC, and 8.00 inches near Miami, FL.

A low-pressure center forming the remnant of Dottie moved back over the water on the 22d. It almost retraced the storm track, southward and then southwestward, across central Florida into the Gulf where it lost its identity on the 25th. This portion of the history of Dottie is not included in the track as no significant weather occurred.

HURRICANE EMMY, AUGUST 20 - SEPTEMBER 4

Hurricane Emmy traversed the central North Atlantic, and more ships encountered gale-force winds or higher than any other storm during the 1976 season. All reports of hurricane-force winds this season, except one, were from ships with in the influence of Emmy.

A depression formed 1,000 miles east of the Windwards on August 20. Moving northwestward, the system became tropical storm Emmy 2 days later, 300 miles east of the Leeward Islands. Northwest motion continued until the 24th when the storm turned sharply eastward. Hurricane status was reached the next day as Emmy continued to the east.

Emmy's recurvature was very anomalous for this location and time of year. This behavior was caused by the development of strong upper-level westerlies across the central and eastern Atlantic and by an unseasonable frontal low-pressure system amplifying rapidly to the northeast of Emmy.

On August 27, a north-to-northeast course was resumed. The storm again turned eastward on the 29th at latitude 35°N and maintained this track for several days. A large number of ships passed rather close to the center of Emmy during this time period.

Maximum intensity was reached on the 29th when wind-

speeds hit 90 kn and the pressure fell to 974 mb. The storm turned north on September 2 and crossed the Azores on the 3d. Emmy weakened as hurricane Frances approached and was absorbed by Frances' large circulation on the 4th.

A Venezuelan plane crashed at Lajes Airfield in the Azores during the height of Emmy's passage; 68 people were killed.

HURRICANE FRANCES, AUGUST 27 - SEPTEMBER 7

Frances followed a track across the central Atlantic similar to that of Emmy, with which it coexisted for 6 days. The initial depression moved west to northwest in the trade wind belt on August 27 and 28. The depression became a storm on the 28th as reconnaissance aircraft measured 50-kn winds. On the 29th, 50-kn winds along with 24 foot waves were confirmed by the HQUX, which was north of Frances.

By this time the storm had crossed about 1,000 miles south of Emmy and turned northward into the weak zone in the middle of the Bermuda-Azores high-pressure area left by the passage of Emmy.

Frances became a hurricane on August 30 and attained maximum intensity on September 1 with 100 kn and 963 mb central pressure. The hurricane continued to follow in the trough of Emmy and recurved toward the east. This too, except for Emmy, was unprecedented for the time and place. Weakening commenced as the storm headed toward the Azores. Satellite pictures suggest that it lost tropical characteristics by the 4th prior to crossing the islands.

HURRICANE GLORIA, SEPTEMBER 26 - OCTOBER 4

The tropical depression which became Gloria formed 400 miles northeast of the Leeward Islands on September 26. The system moved northwestward and intensified. Tropical storm Gloria was named on the 27th, and it became a hurricane on the 29th. Although this storm traveled across the central North Atlantic, only five ships reported gale-force winds.

Influenced by the westerlies, Gloria weakened for the next several days. Winds decreased to tropical storm strength on October 2, 600 miles south of Cape Race. Two days later, it became a depression and finally extratropical on the 5th just north of the Azores.

HURRICANE HOLLY, OCTOBER 22-28

Satellite pictures revealed an area of cloudiness 700 miles east of the Leeward Islands on October 20. After drifting westward, this cloud system became a tropical depression 2 days later. Now moving mainly northward, the depression intensified to a tropical storm on the 23d and to minimal hurricane strength on the following day. This intensity was maintained for only 24 hours, after which it weakened back to a tropical storm.

Holly remained a storm until merging with a strong cold front on the 28th. The lowest pressure was 990 mb and highest winds were 65 kn. Over a dozen ships reported gale-force winds, but none of these appeared to come very close to the storm's center. The JAPAN WISTERIA and EXPORT BUILDER were the only ships to report pressures less than 1010 mb.

SUBTROPICAL STORM NO. 1, MAY 21-25

On May 21, NOAA buoy EB04 and ship reports indicated that a low was forming in the middle Gulf of Mexico. This early season subtropical system strengthened to a storm by the 23d, with the KIEM, EXXON FLORENCE, and SOLON TRUMAN all indicating that this was indeed the case. The system crossed northern Florida and southeastern Georgia and passed into the Atlantic on the 24th. The storm merged with a frontal system a little more than 24 hours later.

The lowest pressure was 994 mb on the 24th off the coast of North Carolina with 45-kn winds. Tides up to 2 feet above normal occurred along portions of the Florida Gulf Coast. Damage was minimal, and rainfall was beneficial to the southeastern States as precipitation had been below normal.

SUBTROPICAL STORM NO. 3, SEPTEMBER 13-17

A low developed along a stationary front over central Florida on September 12. This low became a subtropical storm on the 13th as it passed off the coast just north of Jacksonville. After a short trajectory over water, the storm again touched the coast between Jacksonville and Savannah. A few ships reported gales during this brief period, with 39 kn reported by the RAVA-ROUSSKAYA. These winds were partially caused by a large high-pressure system to the north, which created a strong pressure gradient.

The storm was accompanied by heavy rains over portions of the Southeast. Tides were 2 to 3 feet above normal along the coast of the Carolinas. Damage was confined to minor beach erosion and local stream flooding.

Table 1. - Summary of North Atlantic Tropical Cyclone Statistics, 1976

Storm Name	Intensity	Date	Maximum Sustained Winds (kn)	Lowest Pressure (mb)	U.S. Damage ($ Millions)	Deaths
1. Anna	Tropical Storm	July 28-August 6	40	999		
2. Belle	Hurricane	August 6-10	105	957	100	U.S. - 5
3. Candice	Hurricane	August 18-24	80	964		
4. Dottie	Tropical Storm	August 17-21	45	996	minor	U.S. - 4
5. Emmy	Hurricane	August 20-September 4	90	974		Azores - 68*
6. Frances	Hurricane	August 27-September 7	100	963		
7. Gloria	Hurricane	September 26-October 4	90	970		
8. Holly	Hurricane	October 22-28	65	990		

* Deaths caused by plane crash at Lajes during height of storm.

Table 2. - Summary of North Atlantic Subtropical Cyclone Statistics, 1976

No.	Date	Maximum Sustained Winds (kn)	Lowest Pressure (mb)
1.	May 21-25	45	994
2. (Anna)	July 28-30	40	999
3.	September 13-17	40	1011

Meteorological data, hurricane Belle, August 6-10, 1976

Station	Date	Pressure (inches) Low	Time+	Wind (miles per hour) 1 min average	Time+	Gusts	Time+	Highest Tide (feet) *	Time+	Rainfall (inches)	Remarks
Data Buoy EB15 (32.3°N, 75.3°W)	9	961.1	0100	SW 69	0100						8.5 min average wind
Data Buoy EB41 (38.7°N, 73.6°W)	9	978.7	1800	ESE 57	1800						10 min average wind
CONNECTICUT											
Bridgeport	10					77	0008				
Hartford	10	992.2	0355	E 30	0140	45	0148			1.58	
New London	9							1.0	2120		
DELAWARE											
Wilmington	9	1003.1	1900	NNW 20	1855	NW 34	2125	2.1	1930	1.05	
MAINE											
Portland	10	1004.7		S 29	1050	S 43	1004				
MARYLAND											
Ocean City	9	1001.0	1800	58	1700	69	1700	4.0[1]	1700	4.20	
MASSACHUSETTS											
Ashfield	10									4.11	
Barrington	10									3.11	
Beckett	10									3.85	
Boston	10	1003.4	0715	S 34	0550	S 54	0511	1.4	0400	.01	
Gloucester	10			SE 40	0700						
North Adams	10									4.18	
Scituate	10			SSE 40	0700						
NEW HAMPSHIRE											
Concord	10	1001.4	0854			35	0446			.50	
NEW JERSEY											
Atlantic City	9	993.9	2030	NNE 40	1900	NNE 62	1843	8.85[2]	1924	3.00	
Atlantic City Airport	9			NW 29	2158	NW 48	2011			2.75	
Avalon	9	1014.2	1730	NW 30[1]	1730	NW 50[1]	1730			3.85	
Beach Haven	9	1016.6	1900	NE 45[1]	2200	60[1]	2200			3.73	
Cape May	9	998.0	1915	NW 31		NW 54	2000	2.0		3.86	
Cape May Court House	9			WNW 32	2020	NW 55	2000			3.93	
Manasquan	9					W 80[1]	2030			3.35	
Margate	9									3.90	
Mercer County Airport	9			40		63	2245				
North Wildwood	9			NW 45[1]	1930	NW 55[1]	1930	3.5	1900		
Seaside Heights	9			NE 40[1]		NE 70[1]	2000				
Ship Bottom	9			NE 65[1]		90[1]					
Trenton	9	1000.0	2130	NW 38	2227					1.59	
Wildwood Coast	9			NW 30[1]	1700	NW 61[1]	1930				
NEW YORK											
Central Park	10			N 28		NW 46	0106			3.98	
Garden City	9	987.5	2355								
Islip	10	988.2	0100								
JFK	9	987.8	2215	NNE 43	2151	NNE 68	2156				
LaGuardia	10	990.2	0015	NE 52	2254	NE 63	2252			3.36	
New York City	10	989.8	0000					4.5			
NORTH CAROLINA											
Cape Hatteras	9	994.9	0900	NNW 37	0958	NW 63	0917			3.70	
Frisco	9					75[1]					
Hatteras Place	9					75[1]					
Wilmington	9	973.4	0345	NW 16	0803	NW 18	1018				
PENNSYLVANIA											
Philadelphia	9	968.2	2130	30		41	2050			1.23	
RHODE ISLAND											
Block Island	10					74					
Providence	10	967.5	0230	SSE 44	0303	S 60	0448	3.3	0300	1.77	
VIRGINIA											
Norfolk	9	1005.1	1300	N 32	1153	N 48	1149	1.9	1330	1.08	
Oceana NAS	9					NW 40					
South Island (Chesapeake Bay Bridge)	9					NW 63					

+ Eastern Standard Time

[1] Estimated

[2] Tide above Mean Low Water

* Above normal

NORTH ATLANTIC TROPICAL CYCLONES FOR PAST YEARS

TOTAL NUMBER OF TROPICAL CYCLONES, LOSS OF LIFE AND DAMAGE

Year	Total Number Tropical Cyclones* All Areas	Total Number Tropical Cyclones* Reaching U.S. Coast	Total Number Hurricanes All Areas	Total Number Hurricanes Reaching U.S. Coast	Loss of Life Total All Areas	Loss of Life United States	Damage by Categories** Total All Areas	Damage by Categories** United States
1931	9	2	2	0		0		*
1932	11	5	6	2		0		*
1933	21	7	9	5		63		7
1934	11	5	6	3		17		6
1935	6	2	5	2		414		7
	58	21	28	12				
1936	16	7	7	3		9		6
1937	9	4	3	0		0		4
1938	8	4	3	2		600		8
1939	5	3	3	1		3		3
1940	8	3	4	2		51		6
	46	21	20	8				
1941	6	4	4	2		10		7
1942	10	3	4	2	17	8	7	7
1943	10	4	5	1	19	16	7	7
1944	11	4	7	3	1,076	64	8	8
1945	11	5	5	3	29	7	8	8
	48	20	25	11				
1946	6	4	3	1	5	0	7	7
1947	9	7	5	3	72	53	8	8
1948	9	4	6	3	21	3	7	7
1949	13	3	7	2	4	4	8	8
1950	13	4	11	3	27	19	7	7
	56	22	32	12				
1951	10	1	8	0	244	0	7	6
1952	7	2	6	1	16	3	6	6
1953	14	6	6	2	8	2	7	7
1954	11	4	8	3	720	193	9	9
1955	12	5	9	4	1,518	218	9	9
	54	18	37	9				
1956	8	2	4	1	76	21	8	7
1957	8	5	3	1	475	395	8	8
1958	10	1	7	0	49	2	7	7
1959	11	7	7	3	57	24	7	7
1960	7	5	4	2	185	65	8	8
	44	20	26	7				
1961	11	3	8	1	345	46	8	8
1962	5	1	3	0	4	4	6	6
1963	9	1	7	1	7,218	11	9	7
1964	12	6	6	4	266	49	9	9
1965	6	2	4	1	76	75	9	9
	43	13	28	7				
1966	11	2	7	2	1,040	54	8	7
1967	8	2	4	1	68	18	8	8
1968	7	3	4	1	11	9	7	7
1969	13	3	10	2	364	256	9	9
1970	7	4	3	1	74	11	9	8
	46	14	30	7				
1971	12	5	5	3	44	8	8	8
1972	4	3	3	1	128	121	9	9
1973	7	1	4	0	16	5	7	7
1974	7	1	4	1	3,000+	1	8	8
1975	8	1	6	1	80	21	9	9
	38	11	22	6				
1976	8	2	6	1	77	9	8	8
Total	135	162	253	80				
Mean	9.5	3.6	5.5	1.8				

**The Environmental Data Service has for some time recognized that, without detailed expert appraisal of damage, all figures published are merely approximations. Since errors in dollar estimates vary in proportion of the total damage, storms are placed in categories varying from 1 to 9 as follows:

1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5,000,000
7 $5,000,000 to $50,000,000
8 $50,000,000 to $500,000,000
9 $500,000,000 to $5,000,000,000

*Including hurricanes
* Not reported in literature, believed minor.
- Additional deaths for which figures are not available.

NORTH ATLANTIC TROPICAL CYCLONES FOR PAST YEARS

Frequency of Tropical Cyclones Including Hurricanes by Months and Years

		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1851			1	1	2		1	1		6
1852		1			3		1			5
1853		1	1		2		1			5
1854		1	1	1	2	2	1			8
1855					2	1	2			5
1856										
1857			3	2	1	4	1			11
1858				1		2				3
1859						3	1			4
1860			1			1	2			4
1861										
1862						4	2			6
1863						3	3	1		10
1864				1	2	4	3			10
1865					2	3	2			7
1866			1	1	4	3	2			11
1867						1				1
1868						1	1			2
1869						1	1			2
1870						1				1
1871						1	1			2
1872						1	1			2
1873						1	1			2
1874						1	1			2
1875						1	1			2
1876						1	1			2
1877						1	1			2
1878						1	1			2
1879						1	1			2
1880						1	1			2
1881						1	1			2
1882						1	1			2
1883						1	1			2
1884						1	1			2
1885						1	1			2
1886						1	1			2
1887						1	1			2
1888						1	1			2
1889						1	1			2
1890						1	1			2
1891						1	1			2
1892						1	1			2
1893						1	1			2
1894						1	1			2
1895						1	1			2
1896						1	1			2
1897						1	1			2
1898						1	1			2
1899						1	1			2
1900						1	1			2
1901						1	1			2
1902						1	1			2
1903						1	1			2
1904						1	1			2
1905						1	1			2
1906						1	1			2
1907						1	1			2
1908						1	1			2
1909						1	1			2
1910						1	1			2
1911						1	1			2
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1913						1	1			2
1914						1	1			2
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1916						1	1			2
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1918						1	1			2
1919						1	1			2
1920						1	1			2
1921						1	1			2
1922						1	1			2
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1928						1	1			2
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1930						1	1			2
1931						1	1			2
1932						1	1			2
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1942						1	1			2
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2017						1	1			2
2018						1	1			2
2019						1	1			2
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2091						1	1			2
2092						1	1			2
2093						1	1			2
2094						1	1			2
2095						1	1			2
2096						1	1			2
2097						1	1			2
2098						1	1			2
2099						1	1			2
2100						1	1			2

Frequency of Tropical Cyclones Reaching Hurricane Intensity by Months and Years

	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1851					2				2
1852					1	1	1		3
1853					1				1
1854		1	1	1	1	1			5
1855		1	1	1	1	1			5
1856				1	1				2
1857									
1858					1				1
1859					1				1
1860					1				1
1861									
1862					1				1
1863					1	1			2
1864					1				1
1865					1				1
1866					1				1
1867					1				1
1868					1				1
1869					1				1
1870					1				1
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2016					1				1
2017					1				1
2018					1				1
2019					1				1
2020					1				1
2021					1				1
2022					1				1
2023					1				1
2024					1				1
2025					1				1
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2027					1				1
2028					1				1
2029					1				1
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2054					1				1
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2057					1				1
2058					1				1
2059					1				1
2060					1				1
2061					1				1
2062					1				1
2063					1				1
2064					1				1
2065					1				1
2066					1				1
2067					1				1
2068					1				1
2069					1				1
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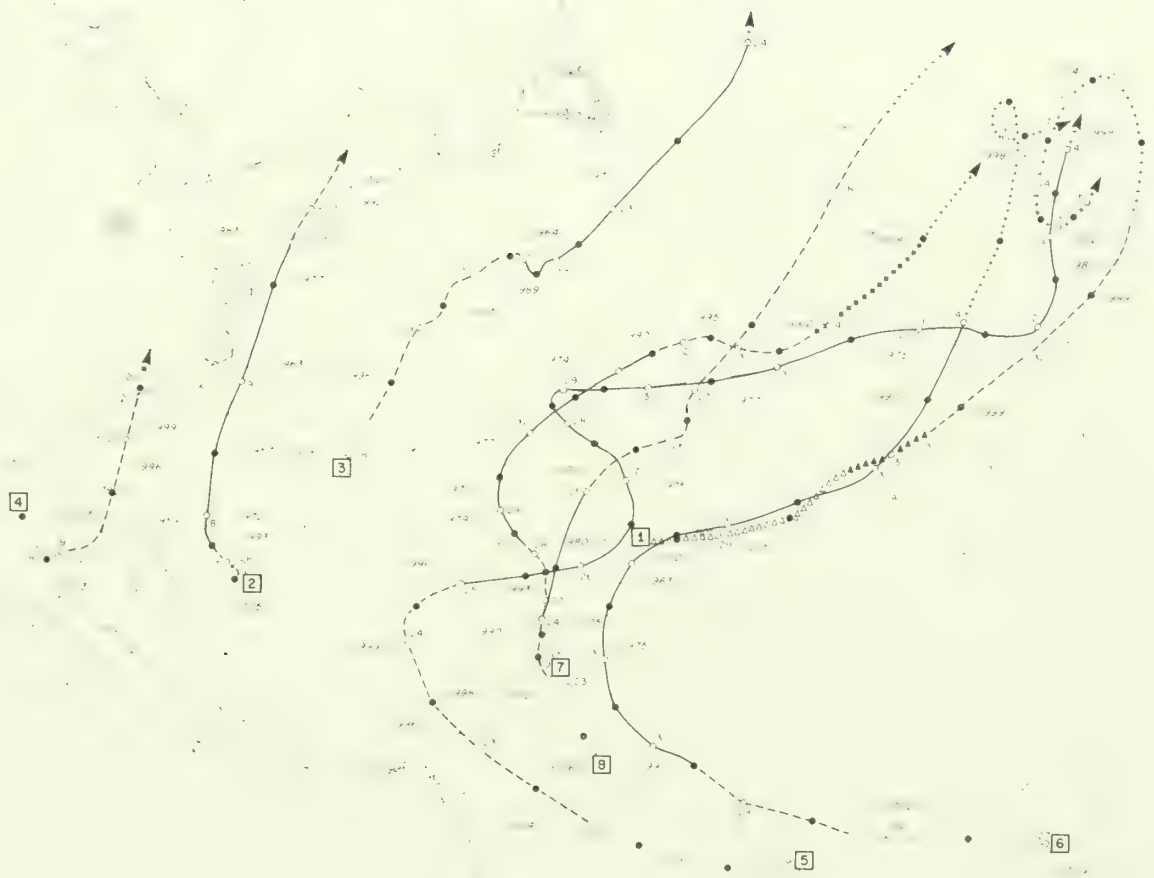
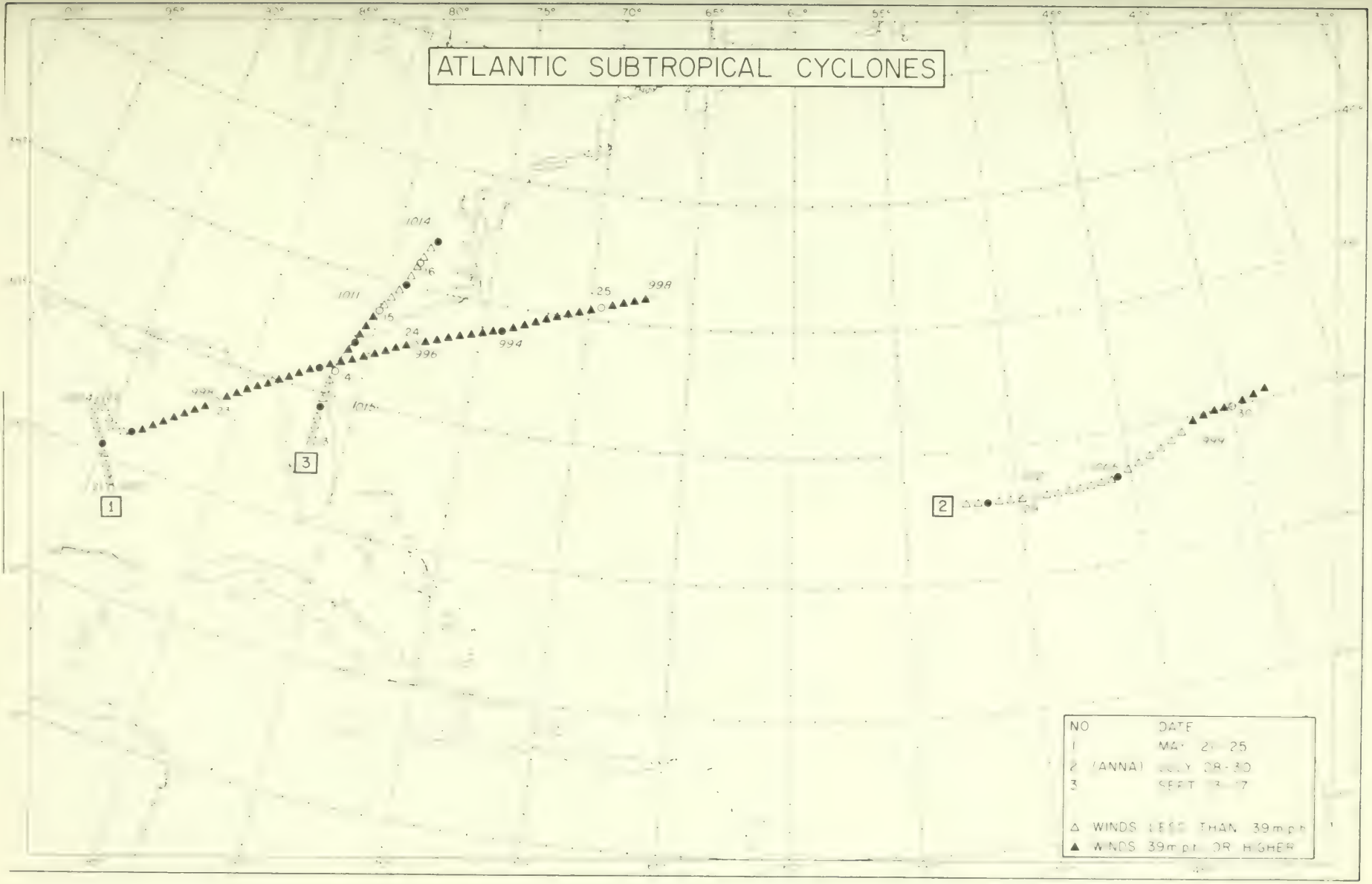
U.S. DEPARTMENT OF COMMERCE
NATIONAL WEATHER SERVICE
ATLANTIC HURRICANE TRACKING CHART

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1011
1015
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996
994
25
24
1
2
3
NO
DATE
1
MAY 21-25
2 (ANNA)
JULY 28-30
3
SEPT 3-7
△ WINDS LESS THAN 39 mph
▲ WINDS 39 mph OR HIGHER

TROPICAL CYCLONES IN THE EASTERN NORTH PACIFIC, 1976

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Tropical cyclone activity over the eastern North Pacific in 1976 began 1 June and ended 29 October. The number of tropical cyclones was about normal with 8 hurricanes, 6 tropical storms, and 4 tropical depressions. Table 1 shows the monthly distribution of the cyclone activity and Tables 2 and 3 compare this activity with that of past years. The 1966-1976 period probably includes all tropical cyclone activity in the area due to satellite coverage during that time. Prior to 1966, some cyclone activity could possibly have gone undetected due to the sparsity of data. A summary of the important features of the 1976 eastern North Pacific tropical cyclone season is given in Table 4. The season was exceptional in that one of the hurricanes, Kathleen, was the first such storm to hit Southern California since 1939. Cyclone tracks are shown in Figures 1 and 2.

Tropical cyclone advisories were issued by the eastern Pacific Hurricane Center four times daily, at 0300, 0900, 1500, and 2100 GMT. A total of 393 advisories were issued beginning with 1800 GMT 2 June and ending with 1200 GMT 29 October.

Several reconnaissance flights were made by U.S. Air Force and NOAA aircraft into eastern Pacific tropical cyclone activity during the 1976 season. The first two flights, into hurricane Annette on 9 June and hurricane Bonny on 27 June, were made primarily in support of research by the National Hurricane and Experimental Meteorological Laboratory in Miami, FL. The third flight on 9 September was into hurricane Kathleen off the west coast of Baja California. Four flights were made into hurricane Liza on 28, 29, and 30 September while the hurricane was south of the Baja California peninsula. Three flights were made into hurricane Madeline on 6, 7, and 8 October, and two flights were made into tropical storm Naomi on 28 October. While satellite imagery continues to improve and is probably one of the most important tools used by the tropical forecaster today, aircraft reconnaissance and surface synoptic ship reports retain their importance as invaluable comparative observations for both the tropical forecaster and satellite meteorologist.

The National Environmental Satellite Service colocated with the eastern Pacific Hurricane Center provided excellent satellite coverage during the 1976 tropical cyclone season. Several movie loops were available each day as well as visual and infrared data at 30 minute intervals from the stationary SMS-2 (Synchronous Meteorological Satellite) and polar-orbiting NOAA-5 satellites. Detail on the satellite pictures was excellent with full disk resolution at 4 miles and sector resolution at 2 miles with ½ mile resolution available on request. Especially useful were the H-curve "enhanced" pictures from infrared imagery depicting the upper level cold core centers of the tropical cyclones. Gridding of satellite pictures was accurate to within a few miles due to the stability of the satellite (SMS-2) over the equator and easily visible landmarks. Cyclone intensity was calculated using the Dvorak technique of satellite cyclone analysis.

While numerous merchant and fishing vessels passed close to tropical cyclone centers during the 1976 season and undoubtedly experienced heavy weather and seas, no reports of casualties or damage were received. However, some smaller craft were damaged in port when the last four cyclones of the season moved onshore along the Mexican Coast.

Hurricane Kathleen moved onshore along the northern Baja California coast, then proceeded northward through the southern California desert area and into western Nevada. Kathleen was the first storm of tropical origin to move into southern California since 1939. It left an average of 3.5 inches of rain over the barren desert areas and as much as 14.5 inches in the higher mountains. Flash flooding took the lives of four people in California and winds to 76 mph resulted in one death in southwestern Arizona. Kathleen caused in excess of $160 million of damage over southern California and Arizona. No reports of casualties or damage were received from Mexico.

Liza was the second hurricane of the 1976 season to move onshore over Mexico. The hurricane skimmed by the southeastern tip of the Baja California peninsula then headed north through the Gulf of California entering mainland Mexico 45 nautical miles north of Los Mochis. Casualty and damage reports on the mainland were not received, but on the Baja peninsula the city of La Paz sustained considerable damage and loss of life. Heavy rains resulted in the failure of an earth-fill dam. The ensuing flood waters caused at least 435 deaths.

Madeline, which had the strongest winds of any hurricane during the 1976 season, went inland along the Mexican Coast 45 nautical miles northwest of Zihuatanejo. Early evacuation is believed to have held casualities to a minimum. Damage was probably extensive but no reports were received.

Tropical Storm Naomi, the last of the season, went inland near Mazatlan on the Mexican Coast. The storm moved onshore with winds of only 35 kn. No reports of damage were received.

TROPICAL CYCLONE ONE, 2-3 JUNE

The first tropical cyclone of the 1976 season began 1200 GMT 1 June as a disturbed area near 11.0N 112.0W. Moving slowly northwest, the disturbance was upgraded to a tropical depression at 1800 GMT 2 June near 12.5N 113.0W. Sustained winds near the center were estimated at 30 kn with gusts to 40 kn. The PHILIPPINE PRESIDENT MAGSAYS, 80 nautical miles to the northwest, reported northwesterly 35 kn winds. By 0000 GMT 3 June the depression had moved to 13.5N 113.5W. Winds

near the center had decreased to 25 kn with gusts to 35 kn. The PHILIPPINE PRESIDENT MAGSAYS, now 70 nautical miles to the northwest, reported northeasterly winds at less than 10 kn. Turning westward, the depression weakened rapidly. The last advisory on the cyclone was issued at 0600 GMT 3 June with winds of 25 kn near the center at 13.0N 116.0W.

HURRICANE ANNETTE, 3-14 JUNE

The second tropical cyclone of the season began as a tropical disturbance at 1800 GMT 2 June near 11.0N 95.0W. Six hours later the disturbance was upgraded to a tropical depression with 25 kn winds at 11.4N 95.2W. Satellite imagery indicated little change in the depression over the next 72 hours with a loosely defined cyclonic circulation at night becoming better organized during the daylight hours. By 0600 GMT 6 June wind increased to 40 kn near the center and the depression was upgraded to tropical storm Annette near 12.0N 96.0W. The RENALDER, 140 nautical miles north of the storm center at 1800 GMT 6 June, reported easterly 35 kn winds and pressure of 1007.7 mb. Moving west at 5 kn tropical storm Annette was upgraded to hurricane Annette at 0600 GMT 7 June about 360 nautical miles south of Acapulco, Mexico. Winds had increased to 65 kn near the center with gusts to 85 kn. Satellite imagery indicated an eye beginning to form near the center of Annette by 1200 GMT 7 June. Moving west-northwest at 8 kn over 88°F water, Annette continued to intensify. On 9 June U.S. Force reconnaissance aircraft flew into Annette locating the center at 14.6N 105.0W at 1707 GMT. Surface winds were estimated at 90 kn and minimum surface pressure computed at 925 mb. The aircraft also reported a well defined eye with a closed wall. Hurricane Annette reached its maximum intensity of 120 kn winds and gusts to 140 kn at 1200 GMT 10 June near 16.0N 108.3W, 300 nautical miles southwest of Manzanillo, Mexico. The hurricane continued to move westward for another 12 hours then turned northwest toward colder (78°F) water. Annette's eye was no longer visible on satellite pictures after 0600 GMT 11 June as the hurricane, under the influence of an upper level trough of low pressure, moved northward over colder water. Annette was downgraded to a tropical storm with 60 kn winds at 1200 GMT on 12 June near 17.8N 113.0W. Weakening rapidly, Annette was downgraded to a tropical depression with 25 kn winds at 1800 GMT 13 June near 19.2N 113.2W. Two more advisories were issued on the depression before convective activity near the center dissipated by 0600 GMT 14 June near 20.9N 115.0W.

HURRICANE BONNY, 25-29 JUNE

Hurricane Bonny began as a tropical disturbance over 86°F water near 12.0N 100.0W at 0600 GMT 22 June. Moving northwest, the disturbance was upgraded to a tropical depression with 30 kn winds near 16.0N 103.0W or 200 nautical miles west of Acapulco at 1800 GMT 25 June. Turning west and moving at 7 kn, the depression was upgraded to tropical storm Bonny at 1200 GMT 26 June near 15.8N 105.1W. Winds near the center were estimated at 45 kn with gale winds extending out 75 nautical miles from the center. By 0000 GMT 27 June winds had increased to 55 kn and gale winds extended to 90 nautical miles from the center now at 16.5N 106.5W. Moving west at 10 to 12 kn, tropical storm Bonny was upgraded to a hurricane at 1200 GMT 27 June near 17.0N 109.4W or 135 nautical miles southeast of Socorro Island. Winds had increased to 65 kn with gusts to 75 kn near the center and gale winds extended out 100 nautical miles from the center. At 1800 GMT the ANCUD, 40 nautical miles north of Bonny and 70 nautical miles south of Socorro Island, reported east-southeast 52 kn winds. NOAA reconnaissance aircraft flew through Bonny at 1939 GMT 27 June locating the center at 17.2N 110.7W or 90 nautical miles south of Socorro Island. Surface winds were estimated at 63 kn and pressure computed at 987.4 mb. Continuing west at 10 to 12 kn, Bonny began to move over colder (76°F) water and weaken. At 0000 GMT 28 June Bonny was downgraded to a tropical storm near 17.3N 111.6W Moving a little faster to the west, the storm was downgraded to a tropical depression with 30 kn winds near 17.7N 114.8W at 1200 GMT 28 June. The final advisory on the depression was issued at 1800 GMT 29 June with the center near 16.2N 117.2W.

TROPICAL CYCLONE FOUR, 28-30 JUNE

The fourth tropical cyclone of the season began as a large area of thunderstorm activity 300 nautical miles in diameter in the Gulf of Tehuantepec at 1200 GMT 28 June. By 1800 GMT the area began to show definite cyclonic circulation and was classified a tropical depression near 13.0N 96.0W. The JAPAN CAORC, 180 nautical miles east of the center, reported southeast 15 kn winds and the EASTERN JADE, 80 nautical miles to the north, reported east 20 kn winds. By 0000 GMT 29 June the center, with 30 kn winds, had moved to 14.5N 95.3W. The JAPAN CAORC, now 60 nautical miles to the southeast, reported southerly 20 kn wind. Moving north at 6 kn, the depression moved onshore near Salina Cruz, Mexico at 0000 GMT 30 June.

TROPICAL STORM CELESTE, 14-19 JULY

After two weeks of relative inactivity in the tropics, the fifth cyclone of the season began as a tropical disturbance at 0600 GMT 14 July 570 nautical miles southwest of Acapulco, Mexico. Moving west at 10 to 12 kn, the disturbance was upgraded to a tropical depression at 1200 GMT 14 July near 11.0N 108.50W. Continuing west at 12 to 15 kn, the depression was upgraded to tropical storm Celeste with 35 kn winds at 1800 GMT 15 July near 10.8N 115.0W. The WALTER RICE, 180 nautical miles to the south, reported southerly 25 kn winds. Winds near the center of Celeste increased to 45 kn by 0000 GMT 16 July and continued at 45 kn through 0000 GMT 17 July. Moving west, tropical storm Celeste began to weaken and was downgraded to a tropical depression with 30 kn winds at 1200 GMT 17 July near 11.0N 126.5W. Accelerating to the westnorthwest at 15 to 20 kn, the depression began to move to colder water and weaken rapidly. The final advisory on the depression was issued at 0600 GMT 19 July, the cyclone having dissipated into a large area of scattered showers and thundershowers near 13.5N 139.5W.

TROPICAL CYCLONES IN THE EASTERN NORTH PACIFIC

HURRICANE DIANA, 15-22 JULY

Diana began as a tropical disturbance near 10.0N 99.0W or 400 nautical miles south of Acapulco at 0600 GMT 15 July. The ship RACHEL, 75 nautical miles to the west, reported intermittent moderate rain and west-northwest 20 kn winds. At 1200 GMT another ship, NORSE VIKING 140 nautical miles northeast of the disturbance, reported east-southeast 35 kn wind in squalls. The disturbance was upgraded to a tropical depression at 1800 GMT 15 July near 11.5N 102.5W RACHEL, 90 nautical miles to the south, continued to report intermittent moderate rain but winds had decreased to 10 kn. Moving west-northwest over 85°F water, the depression was upgraded and named tropical storm Diana with 35 kn winds at 1200 GMT 16 July near 13.0N 107.0W. Winds near the center of Diana increased to 45 kn by 1800 GMT. RACHEL was now 180 nautical miles south of Diana and reporting westerly 15 kn winds. Satellite infrared and "enhanced" imagery showed Diana with a diameter of 200 nautical miles and upper level clouds extending out about 400 nautical miles. By 1800 GMT 17 July Diana had developed an eye and winds near the center had increased to 65 kn. The storm was upgraded to hurricane status near 14.4N 114.3W at 1800 GMT 17 July. Moving west at 10 to 12 kn over 83°F water, Diana continued to intensify. By 1800 GMT 18 July winds near the center, now at 14.7N 119.8W, had increased to 85 KN with gusts to 95 kn. The hurricane, continuing on a westerly track at 12 to 15 kn, began to move over cooler water toward a large low level cloud field. Weakening slowly, Diana was downgraded to a tropical storm with 55 kn winds at 1200 GMT 20 July near 17.1N 129.4W. Although infrared satellite imagery no longer showed Diana with an eye, visual pictures continued to show a weak remnant of the eye through 1800 GMT 20 July. Winds near the center of Diana began to diminish rapidly and the storm was downgraded to a tropical depression with 30 kn winds at 1800 GMT 21 July near 18.4N 138.0W. The last advisory issued by the Eastern Pacific Hurricane Center on the cyclone was at 0000 GMT 22 July with the center near 18.6N 139.8W. The cyclone continued westward into the Central Pacific Hurricane Center of forecast responsibility. The Center followed the depression through 1800 GMT 22 July.

TROPICAL STORM ESTELLE, 26-29 JULY

Tropical cyclone seven began as a tropical disturbance 1800 GMT 24 July near 9.0N 113.0W, 900 nautical miles southwest of Acapulco. Moving west-northwest at 12 kn over 82°F water, the disturbance began to show cyclonic circulation by 1800 GMT 26 July and was upgraded to a tropical depression near 12.5N 122.5W. Satellite imagery at 1800 GMT 26 July showed a large area of cyclonic circulation about 450 nautical miles in diameter with two centers of convective activity, one near the center of the depression and the other 250 nautical miles to the west. As the depression moved west-northwest, the distance between the centers increased. At 0600 GMT 27 July the depression was upgraded to tropical storm Estelle with 35 kn winds near the center at 14.0N 125.0W. The western center of convective activity was now 450 nautical miles west of the storm center. By 1200 GMT 27 July the two centers were distinctly separate with the western center becoming tropical cyclone eight near 13.0N 132.9W and the eastern center tropical storm Estelle near 14.0N 125.8W. Estelle, continuing to move west-northwest, began to slowly weaken as tropical cyclone eight, moving west-southwest, began to intensify. Moving toward cooler water, Estelle was downgraded to a tropical depression with 30 kn winds at 0600 GMT 28 July near 16.2N 130.2W. The final advisory on the depression was issued at 0000 GMT 29 July with the center near 16.2N 132.0W.

TROPICAL STORM FERNANDA, 27-30 JULY

Tropical cyclone eight, spinning off the north side of tropical storm Estelle, moved west-northwest with Estelle before splitting off as a separate disturbance centered near 13.0N 132.9W at 1200 GMT 27 July. The disturbance, moving west-southwest, was upgraded to a tropical depression at 1800 GMT 27 July near 12.4N 133.3W. By 0600 GMT 28 July winds near the center had increased to 35 kn and the depression was upgraded to tropical storm Fernanda near 11.9N 133.8W. Satellite imagery showed Fernanda with a small dismeter of about 200 nautical miles and no visible eye. As Fernanda turned westward, the remnants of Estelle, 250 nautical miles to the north, turned southwest and merged with Fernanda. Estelle, from which Fernanda began, was now, three days and nine hundred nautical miles later, merged into Tropical Storm Fernanda.

By 1800 GMT 29 July Fernanda began to weaken and was downgraded to a tropical depression with 30 kn winds at 13.0N 137.0W. The WAKAHATA MARU, 300 nautical miles to the west, reported northerly 20 kn winds in squalls. By 0600 GMT 30 July the WAKAHATA MARU was 60 nautical miles south of the depression and reporting southerly 20 kn winds. The last advisory on the cyclone issued by the Eastern Pacific Hurricane Center was at 1200 GMT 30 July with the center near 13.0N 140.0W. The Central Pacific Hurricane Center at Honolulu, Hawaii continued to follow the depression through 0600 GMT 1 August when it dissipated near 14.0N 149.9W.

TROPICAL STORM GWEN, 5-14 AUGUST

Gwen began as a tropical disturbance at 1800 GMT 3 August about 380 nautical miles south of Acapulco, Mexico. Moving west at 13 kn, the disturbance was upgraded to a tropical depression with 30 kn winds near 9.8N 107.0W at 0000 GMT 5 August. Within 24 hours winds had increased to 35 kn and the depression was upgraded to tropical storm Gwen near 10.0N 11.0W at 0000 GMT 6 August. Winds increased steadily to 45 kn by 0600 GMT 6 August and to 55 kn by 0000 GMT 8 August. Continuing westward, Gwen passed over the northern edge of an area of cooler (80°F) water. The storm began to slow down and to weaken. At the same time, tropical depression eleven, 900 nautical miles to the west, was dissipating rapidly and tropical storm Hyacinth, 750 nautical miles to the east, was moving west and intensifying. At 1800 GMT 8

August the SERGEY YESENTN, 200 nautical miles south-southwest of Gwen, reported 30 kn winds from the southwest. As Gwen passed to the north of the SERGEY YESENTN, winds on the ship increased to 35 kn still out of the southwest. By 0600 GMT 9 August Gwen had become quasi-stationary near 11.0N 124.0W. At 1200 GMT 11 August the storm was downgraded to a tropical depression with 30 kn winds near the center still near 11.0N 124.0W. Between 0600 GMT and 1200 GMT on 12 August the depression began to move again. Under the influence of hurricane Hyacinth 500 nautical miles to the north, the depression accelerated northward at 25 kn. Intensifying rapidly, the depression was upgraded again to tropical storm Gwen with 45 kn winds at 1800 GMT 12 August near 15.5N 124.0W. The ship ATTICA, 30 nautical miles east of Gwen at 1800 GMT 12 August, reported southerly 45 kn winds. By 1200 GMT 13 August Gwen, with 40 kn winds, had moved to 22.0N 128.5W and Hyacinth, 330 nautical miles to the west, was weakening rapidly with 35 kn winds. The HOBART STAR, 215 nautical miles north of Gwen at 1200 GMT 13 August, reported easterly 25 kn winds. By 1800 GMT 13 August winds on the HOBART STAR, now 150 nautical miles northeast of Gwen, had shifted to southeasterly at 25 kn. Another ship, the COLLUMBUS CAPRICORN 140 nautical miles to the west of Gwen, reported northeasterly 30 kn winds. Turning west, Gwen began to slowly weaken. The storm was downgraded to a tropical depression with 30 kn winds at 0600 GMT 14 August near 24.0N 136.2W. Hyacinth, 200 nautical miles to the south, continued to weaken, then turned north merging with the depression near 23.5N 139.0W at 1200 GMT 14 August. The depression continued to drift westward into the Central Pacific Hurricane forecast area becoming diffuse near Hawaii on 17 August.

HURRICANE HYACINTH, 6-14 AUGUST

Hyacinth began as a disturbed area near 9.5N 96.7W at 1800 GMT 5 August. Moving west-northwest at 11 kn over 85°F water, the disturbance began to show signs of cyclonic circulation and was upgraded to a tropical depression at 1800 GMT 6 August. The center, near 12.1N 102.2W, was, with later satellite information, shown to be nearer 11.5N 101.0W at 1800 GMT. Winds increased to 35 kn by 0600 GMT 7 August and the depression was upgraded to tropical storm Hyacinth near 12.0N 102.0W. By 0000 GMT 8 August winds near the center had increased to 55 kn. The MARITIME JUSTICE, 200 nautical miles south-southeast of the center, reported southerly 25 kn winds and moderate continuous rain. Winds near the center of Hyacinth increased to 70 kn by 1200 GMT on 9 August and the storm was upgraded to hurricane Hyacinth near 15.0N 110.2W. By 1800 GMT 9 August Hyacinth, with 85 kn winds near the center, had developed a small well defined eye 10 nautical miles in diameter near 14.7N 111.0W. The MARITIME JUSTICE, 140 nautical miles to the south, reported westerly 35 kn winds and heavy continuous rain. At the same time ATTICA, 180 nautical miles south of the hurricane, reported westerly 35 kn winds and the ship CAPE LEEUWIN, 220 nautical miles east-northeast of the center, reported southeast 25 kn winds. Moving west-northwest at 6 kn, Hyacinth continued to intensify over 84°F water. Winds increased to 95 kn by 0000 GMT 10 August with the center near 14.8N 111.4W. The MARITIME JUSTICE, 160 nautical miles to the southwest, reported violent rain showers and westerly 30 kn winds. Another ship, the KANAGAWA MARU 300 nautical miles east of the hurricane, reported southerly 25 kn winds, and Socorro Island, 250 nautical miles north of Hyacinth, reported easterly 35 kn winds in squalls. Hyacinth moved to 15.1N 112.1W by 0600 GMT 10 August. Winds near the center had increased to 100 kn. The eye, which had developed only 12 hours earlier, was no longer visible on satellite imagery by 0600 GMT 10 August. By 1800 GMT 10 August Hyacinth had moved to 16.0N 113.8W. The KANAGAWA MARU, 270 nautical miles to the east reported southerly 25 kn winds and continuous light rain. The ATTICA, 250 nautical miles south of the hurricane center, reported southwesterly 35 kn winds. Another ship, the NORDLAND, 220 nautical miles north-northwest of Hyacinty, reported east-northeast 35 kn winds, and still another ship, the CAPE LEEUWIN, 240 nautical miles north-northeast of the hurricane center, reported east-northeast 25 kn winds and heavy intermittent rain. Winds began to decrease near the center of Hyacinth after 0600 GMT 11 August as the hurricane accelerated west-northwest at 15-20 kn 500 nautical miles northeast of near stationary tropical storm Gwen. By 1200 GMT 11 August Hyacinth had moved to 17.5N 117.5W and winds near the center had decreased to 85 kn. Hyacinth continued to move west-northwest accelerating to 25 kn by 1800 GMT 12 August with the center near 22.2N 127.8W. Winds had decreased to 70 kn as the hurricane, now moving over cooler (74°F) water, continued to weaken. As Hyacinth passed to the north, tropical storm Gwen began to intensify and move northward eventually passing 330 nautical miles to the east of Hyacinth at 1200 GMT 13 August. Hyacinth, turning west, was downgraded to a tropical storm with 55 kn winds near 22.0N 130.5W at 0000 GMT 13 August. The storm turned southwestward at 1200 GMT on the 13th and was downgraded to a tropical depression with 30 kn winds near 20.5N 137.0W at 0000 GMT 14 August. By 0600 GMT 14 August the depression had moved to 20.0N 139.0W. It then turned northward merging with Gwen, now a tropical depression, near 23.5N 139.0W at 1200 GMT 14 August. The last advisory issued by the eastern Pacific Hurricane Center on Hyacinth was at 1200 GMT 14 August with the center near 22.0N 139.0W. Gwen continued to drift westward into the Central Pacific Hurricane Center's forecast area, carrying with it the remnants of hurricane Hyacinth.

TROPICAL CYCLONE ELEVEN, 7-8 AUGUST

The eleventh tropical cyclone of the 1976 season began as a disturbed area near 8.5N 109.0W at 0600 GMT 2 August. The disturbance developed 1-1/2 days before tropical storm Gwen and 3-1/2 days before hurricane Hyacinth first appeared. Within a few days all three systems were moving west and west-northwest across the northwestern Pacific, tropical cyclone Eleven 900 nautical miles west of Gwen, and Gwen 750 nautical miles west of Hyacinth. Moving west-northwest 11 kn, tropical cyclone Eleven turned west near 13.5N 123.0W at 0600 GMT 5 August. After traveling almost 1600 nautical miles as a tropical disturbance, the

cyclone developed a cyclonic circulation and was upgraded to a tropical depression near 14.2N 134.0W at 1800 GMT 7 August. Turning to the northwest and slowing to about 5 kn, the depression moved to near 14.8N 135.2W by 1200 GMT 8 August. It then turned southeast becoming stationary near 14.0N 134.6W where the final advisory on the cyclone was issued at 1800 GMT 8 August. Gwen, 850 nautical miles to the east-southeast, was also nearly stationary and weakening, while Hyacinth, about 1500 nautical miles to the east, was moving northwest and intensifying.

TROPICAL CYCLONE TWELVE, 16-19 AUGUST

Tropical cyclone Twelve began as a tropical disturbance near 12.0N 113.0W 1800 GMT 13 August. Moving northwest over 84°F water, the winds near the center of the disturbance increased to 30 kn by 1800 GMT 14 August near 15.2N 116.7W. Turning west and moving at 8 to 9 kn, the disturbance was upgraded to a tropical depression near 15.5N 120.9W at 0000 GMT 16 August. Satellite imagery indicated cyclonic circulation about the center of the disturbance and surface winds were estimated at 30 kn. Turning west-southwest, the depression moved to 13.2N 126.5W by 1200 GMT 17 August. The depression then turned west-northwest and, moving over cooler (81°F) water, began to weaken with winds disminishing to 25 kn by 0600 GMT 18 August. Continuing on a west-northwesterly track, the depression moved into a field of low clouds and weakened rapidly. The last advisory issued by the Eastern Pacific Hurricane Center on the cyclone was at 0000 GMT 19 August with the center near 15.0N 132.0W.

HURRICANE IVA, 24 AUGUST - 2 SEPTEMBER

Iva began as a tropical disturbance near 13.0N 94.0W or 420 nautical miles southeast of Acapulco, Mexico at 1800 GMT 23 August. Moving west at 12 kn over 83°F water with warmer (85°F) water to the north and east, the disturbance intensified rapidly. Satellite pictures showed the disturbance as an area of intense thunderstorm activity 300 nautical miles in diameter. By 0000 GMT 24 August cyclonic circulation appeared about the center on satellite time-lapse movie loops and the disturbance was upgraded to a tropical depression near 13.0N 96.0W. Winds increased to 35 kn by 1800 GMT 25 August and the depression was upgraded to tropical storm Iva near 13.5N 104.0W or 320 nautical miles southwest of Acapulco. Turning west-northwest and moving at 10 kn, Iva continued to intensify, drawing warm, moist air northward from the Intertropical Convergence Zone 400 nautical miles to the south. By 1600 GMT 26 August NOAA-5 high resolution satellite imagery showed Iva with a small eye approximately 10 nautical miles in diameter. Winds near the center of Iva increased to 65 kn by 1800 GMT 26 August and the storm was upgraded to hurricane Iva near 15.2N 107.8W or 300 nautical miles southwest of Manzanillo, Mexico. Continuing west-northwest, Iva passed 70 nautical miles south of Socorro Island at 0000 GMT 28 August. Winds near the center of the hurricane had increased to 110 kn and winds on Socorro Island were easterly 55 kn. By 0600 GMT 28 August the hurricane's eye had increased to 25 nautical miles in diameter and winds near the center had increased to 115 kn. Socorro Island, now 85 nautical miles to the east, reported southeasterly 45 kn winds. By 1200 GMT winds on Socorro Island had decreased to 25 kn with Iva now 140 nautical miles to the west. As Iva continued on a west-northwesterly track, the hurricane began to move over cooler (80°F) water and slowly weaken. By 0900 GMT 29 August the eye was no longer visible on satellite imagery. Winds continued to decrease as the hurricane moved west-northwest at 9 kn into an extensive field of low stratus and stratocumuls clouds. By 1200 GMT 30 August Iva was moving over 76°F water and winds near the center had decreased to 60 kn. The hurricane was downgraded to tropical storm Iva near 20.7N 122.0W at 1200 GMT 30 August. Iva continued to weaken rapidly as it moved northwest into the field of low clouds and over still colder (70-74°F) water. By 0000 GMT 1 September the storm was downgraded to a tropical depression near 23.4N 126.4W. The final advisory on the cyclone was issued by the Eastern Pacific Hurricane Center at 0000 GMT 2 September with the center of the depression dissipating rapidly near 24.9N 128.5W

TROPICAL STORM JOANNE, 28 AUGUST - 8 SEPTEMBER

The fourteenth tropical cyclone of the season began as a tropical disturbance at 1200 GMT 26 August near 4.0N 80.0W or about 150 nautical miles west of the Columbian Coast. The disturbance, centered within a large area of convective thunderstorm activity 300 nautical miles in diameter, moved northwest at 15 to 18 kn to 8.5N 84.5W or 45 nautical miles west of the De Osa Peninsula on the Costa Rican coast by 1200 GMT 27 August. Turning west-southwest and moving at 18 kn away from the coast, the center of the disturbance moved to 6.5N 87.5W by 0000 GMT 28 August. It then turned west and, slowing to 12 to 14 kn, began to intensify. By 0000 GMT 29 August satellite pictures indicated definite circulation about the center of the disturbance and it was upgraded to a tropical depression with 25 kn winds near 7.8N 92.2W. Turning west-northwest and moving at 11 kn over 81°F water, winds increased to 30 kn by 0000 GMT 30 August with the center near 9.9N 96.0W. The depression then turned west and moving at 10 kn began to weaken. By 1800 GMT 30 August satellite imagery indicated that circulation had ceased about the center and the depression was downgraded to a tropical disturbance again near 9.5N 99.0W. The disturbance then moved rapidly west-northwest at 18 kn and appeared to be dissipating into an area of widely scattered thunderstorm activity three to four hundred nautical miles in diameter. However, between 0600 GMT and 1200 GMT 31 August the thunderstorm activity increased again and coalesced into a solid area 300 nautical miles in diameter. Within 12 hours satellite imagery indicated cyclonic circulation about the center of the activity and the disturbance was upgraded to a tropical depression again at 0000 GMT 1 September near 11.0N 107.0W. The ship MORILLO, 80 nautical miles northeast of the center at 0000 GMT 1 September, reported east-southeasterly 30 kn winds and violent rain showers. Turning west-southwest, the depression moved to 10.0N 110.0W by 1800 GMT then turned northwest and, moving at 8 kn over 82°F water, began

to intensify. By 1200 GMT 3 September winds near the center had increased to 40 kn and the depression was upgraded to tropical storm Joanne near 14.0N 114.0W. Joanne moved northwest to 15.0N 114.9W by 0000 GMT 4 September then turned west-southwest and began to slowly weaken. Low clouds pushing down from the north continued to weaken the storm to the extent that it was downgraded to a tropical depression with 30 kn winds near 14.4N 117.3W by 0000 GMT 5 September. Turning west and continuing to weaken, the depression moved to 12.5N 124.5W where the final advisory was issued on the cyclone at 0600 GMT 8 September.

HURRICANE KATHLEEN, 7-10 SEPTEMBER

Kathleen, the fifteenth tropical cyclone of the season, began as a tropical disturbance 300 nautical miles southwest of Acapulco, Mexico, at 0000 GMT 6 September. The disturbance, centered near 13.0N 103.0W within an area of intense thunderstorm activity 600 nautical miles in diameter, began to move rapidly west-northwest. By 0600 GMT 7 September the disturbance had moved to 15.0N 109.0W, 360 nautical miles southwest of Manzanillo and, with 25 kn winds near the center, was upgraded to a tropical depression. The LEVEN FISHER, 130 nautical miles to the east-southeast, reported southwesterly 10 kn winds, continuous moderate rain, and pressure of 1008.5 mb. By 1800 GMT the depression had moved only 12 nautical miles south of its 0600 GMT position and the LEVEN FISHER, 30 nautical miles to the northwest, reported a pressure of 1003.7 mb. Another ship, the PIONEER CONTENDER, 210 nautical miles northwest of the depression, reported south-southeasterly 20 kn winds and a pressure 1009.1 mb. Socorro Island, 260 nautical miles north-northwest of the depression, reported east-northeasterly 10 kn winds. Winds near the center of the depression increased to 35 kn by 0000 GMT 8 September and the depression was upgraded to tropical storm Kathleen near 15.5N 105.3W, or still about 360 nautical miles southwest of Manzanillo. The PIONEER CONTENDER, 180 nautical miles to the northeast, reported southeast 25 kn winds. Socorro Island winds, still out of the east-northeast, had increased to 20 kn. Moving northwest over 83°F water, Kathleen intensified rapidly with winds reaching 55 kn by 0600 GMT 8 September with the center near 16.0N 109.8W, 180 nautical miles south-southeast of Socorro Island. Winds on the Island increased steadily as Kathleen approached from the south reaching 50 kn from the southeast by 0000 GMT 9 September. The storm passed 60 nautical miles to the west of the Island at 0300 GMT and by 0600 GMT winds on Socorro, still from the southeast, had decreased to 35 kn. Kathleen was then 60 nautical miles northwest of the Island. Turning north-northwest, the storm passed over the western edge of an area of very warm (87°F) water off the southern tip of Baja California. Drawing additional energy from the warm water on its eastern side, Kathleen began to intensify and accelerate rapidly northward. By 1800 GMT the storm center had moved to 23.0N 113.3W or 180 nautical miles west of the tip of Baja California. The CONON FOREST, 80 nautical miles north-northeast of the center, reported easterly 35 kn winds and heavy intermittent rain. The AMERICAN LEADER, 160 nautical miles east of the storm and near the tip of Baja, reported southeasterly 45 kn winds. The GOLDEN EXPLORER, 190 nautical miles northwest of Kathleen, reported north-northeasterly 20 kn winds and light rain. Winds on Socorro Island, then 290 nautical miles to the south-southeast, had diminished to 10 kn from the south. Turning to the north and moving rapidly at 20 kn, Kathleen was upgraded to a hurricane with 70 kn winds near the center at 0000 GMT 10 September at 25.0N 114.0W. The CONON FOREST, 40 nautical miles to the east, reported southeast 40 kn winds and the AMERICAN LEADER, 130 nautical miles east-southeast of Kathleen, reported southerly 40 kn winds. At 0046 GMT 10 September U.S. Air Force reconnaissance aircraft located the center of Kathleen at 25.3N 114.8W. Surface winds were estimated at 80 kn and pressure at 986 mb. A second flight through the hurricane at 0145 GMT estimated the surface winds at 55 kn and pressure at 990 mb. Kathleen was downgraded to a tropical storm with 55 kn winds at 0600 GMT 10 September near 26.8N 114.4W after a brief existence as a hurricane. Accelerating rapidly northward at 30-33 kn, Kathleen crossed the western tip of the Point Eugenia peninsula on the west coast of Baja California between 0700 GMT and 0800 GMT 10 September. The storm moved onshore 140 nautical miles south of Ensenada, Mexico, at 1130 GMT 10 September. Kathleen then continued northward over the Sierra San Pedro and Juarez mountains entering southern California near Calexico at 1800 GMT. Racing across the southern California desert, Kathleen began to weaken. The storm moved northward through Death Valley and into western Nevada 140 nautical miles southeast of Reno by 0600 GMT 11 September. The center of the storm was difficult to locate after 0600 GMT, however, gusty winds and rain continued to spread northward into eastern Oregon, Idaho, Montana, Utah, and Wyoming.

HURRICANE LIZA, 25 SEPTEMBER - 1 OCTOBER

Liza, the hurricane that brought death and destruction to the city of La Paz on the tip of the Baja California peninsula, began 25 September as an area of intense thunderstorm activity 400 nautical miles in diameter centered near 12.5N 106.0W. By 1800 GMT 25 September satellite pictures indicated cyclonic circulation about the center of the disturbance and it was upgraded to a tropical depression with 25 kn winds near 13.0N 107.0W. Winds increased to 35 kn by 1800 GMT 26 September and the depression was upgraded to tropical storm Liza near 14.0N 108.5W, 620 nautical miles south of La Paz. Turning north and moving 5 kn over warm (85°F) water, Liza began to intensify. By 1800 GMT 27 September the center, with 55 kn winds, had moved to 16.3N 108.2W. At 1730 GMT 28 September U.S. Air Force reconnaissance aircraft located the center of Liza near 18.0N 108.0W or 400 nautical miles south of La Paz. Surface winds were estimated at 40 kn and sea level pressure at 971 mb. Although not visible on satellite pictures, Liza had developed a 15 nautical miles diameter closed wall eye. Moving north at 5 kn, Liza'a winds increased to 65 kn by 1800 GMT 28 September and the storm was upgraded to a hurricane near 18.0N 108.1W. The KISU MARU, 150 nautical miles to the southwest, reported northwesterly 30 kn winds and the SPAIN MARU, 120 nautical miles to the north reported easterly 20 kn winds with continuous moderate rain. At

1923 GMT a second flight through the hurricane by the U.S. Air Force reconnaissance aircraft fixed the center at 18.0N 108.2W. Surface winds were now estimated at 65 kn and sea level pressure at 968 mb. Winds increased to 70 kn near the center of Liza by 0000 GMT 29 September near 18.3N 107.9W. The KISO MARU, 120 nautical miles to the south, reported westerly 35 kn winds with violent rain showers. Socorro Island, 180 nautical miles to the west reported west-northwesterly 10 kn winds. By 1200 GMT winds on Socorro had shifted to the northwest and increased to 40 kn. Liza was now at 19.0N 108.0W or 340 nautical miles south of La Paz. Air Force reconnaissance penetrating the hurricane at 1204 GMT 29 September computed surface pressure near the center of Liza at 948 mb. The hurricane's eye now visible for the first time on infrared satellite imagery had become elliptical with the major axis 14 nautical miles long orientated north-northwest/south-southeast (340°-160°). Continuing north, Liza began to move over warmer (86°F) water. The ship INGER, 110 nautical miles east-northeast of Liza and 30 nautical miles off the Mexican Coast at 1500 GMT, reported southeasterly 50 kn winds and violent rain showers. The U.S. Air Force made another flight through Liza at 1800 GMT locating the center at 19.3N 107.9W. Surface winds were estimated at 110 kn and pressure at 941 mb. The eye was again circular with concentric walls 10 to 30 nautical miles in diameter. INGER, still 110 nautical miles east-northeast of the center, reported southeasterly 60 kn winds and continued violent rain showers. The PHRYNE, 120 nautical miles south-southeast of Liza, reported southwesterly 35 kn winds and 16 foot swells. The GRAFTON, 150 nautical miles south of the hurricane, reported southwest 30 kn winds and the RHINE MARU, 180 nautical miles to the west-southwest, reported northwest 30 kn winds. By 0000 GMT 30 September Liza, with 110 kn winds, had moved to 20.0N 107.9W, 280 nautical miles south of La Paz. The MOGAMISAN MARU, 110 nautical miles east-northeast of Liza and 30 nautical miles off the Mexican Coast, reported southeasterly 35 kn winds. The INGER, 120 nautical miles east of the hurricane and 15 nautical miles off the coast, reported southeasterly 45 kn winds and 24 foot seas. Socorro Island, 190 nautical miles west-southwest of Liza, reported west-northwest 35 kn winds. At 1500 GMT the ship RICHARD, 110 nautical miles south-southeast of the hurricane, reported a sudden drop in sea surface temperature. As a result of upwelling induced by Liza's winds, the water temperature had dropped from 88°F twelve hours earlier to 80°F at 1500 GMT.

Moving north at 8 kn over warm (86°F) water, Liza continued to intensify, gathering additional energy from the warmer (88°F) water along its eastern side. At 1725 GMT 30 September the Air Force flew another reconnaissance flight through the center of the hurricane locating the center at 22.1N 109.3W, 140 nautical miles south of La Paz. Surface winds were estimated at 125 kn and pressure at 939 mb. The diameter of the eye had increased to 20 nautical miles with a 2 nautical miles thick closed wall. The OAKLAND, 90 nautical miles west of Liza at 1800 GMT, reported northerly 30 kn winds in the lee of the tip of Baja California. By 0000 GMT 1 October Liza was 50 nautical miles east-southeast of La Paz at 23.8N 109.3W. The FAIRSEA and PHRYNE, 150 and 200 nautical miles south of Liza, reported westerly 40 kn winds. At 0200 GMT 1 October Liza, with 115 kn winds and gusts to 130 kn, passed 45 nautical miles to the east of La Paz. An estimated 5 to 6 inches of rain fell over the southern end of the Baja Peninsula resulting in considerable damage and several hundred deaths. Moving rapidly northward over the southern end of the Gulf of California, Liza moved onshore with 100 kn winds on the west coast of Mexico 45 nautical miles north of Los Mochis at 1300 GMT 1 October. Weakening rapidly, the storm accelerated across northern Mexico at 25 to 30 kn.

HURRICANE MADELINE, 29 SEPTEMBER - 8 OCTOBER

Hurricane Madeline began as a tropical disturbance on 27 September 0000 GMT near 9.0N 91.0W or 300 nautical miles south of the Guatemalan coast and 700 nautical miles southeast of Acapulco, Mexico. At 2100 GMT 28 September the SEATIGER, 70 nautical miles south of the disturbance, reported south-southwesterly 40 kn winds and heavy continuous rain. With satellite pictures indicating cyclonic circulation about the center, the disturbance was upgraded directly to tropical storm Madeline with 35 kn winds near the center at 10.0N 90.5W at 0000 GMT 29 September. By 1200 GMT satellite pictures showed considerable weakening of the storm and Madeline was downgraded to a tropical depression with 30 kn winds near 10.0N 91.1W. The STAR MALMANGER, 120 nautical miles north-northeast of the depression at 0000 GMT 30 September, reported southeasterly 30 kn winds. By 1800 GMT 30 September winds had diminished to 25 kn and, with circulation no longer evident about the center, the depression was downgraded to a tropical disturbance near 11.5N 92.0W or 500 nautical miles southeast of Acapulco. The disturbance then turned west and moving at 4 kn began to slowly regenerate. The T. S. PETERSEN, 70 nautical miles east of the disturbance at 0000 GMT 1 October, reported southeasterly 25 kn winds. The AMERICAN ASTRONAUT, 40 nautical miles south-southwest of the disturbance at 0000 GMT 2 October, reported northwest 25 kn winds and heavy intermittent rain. By 1800 GMT the disturbance had moved to 12.0N 95.0W and the MUST LLOYD, 60 nautical miles to the north, reported easterly 25 kn winds. Satellite imagery indicated cyclonic circulation about the center by 0000 GMT 3 October and the disturbance was upgraded to a tropical depression with 30 kn winds near 11.8N 95.5W, 400 nautical miles southeast of Acapulco. Turning southwest, the depression moved to 10.5N 97.5W by 1800 GMT 4 October remaining near stationary for the next 18 hours. By 0000 GMT 5 October winds near the center had increased to 35 kn and the depression was upgraded to tropical storm Madeline again at 10.5N 97.5W, 400 nautical miles south-southeast of Acapulco. Madeline turned north-northwest after 1200 GMT 5 October and, with warmer (85°F) water on its northeast side, began to intensify rapidly. By 0000 GMT 6 October the storm had moved to 12.1N 98.4W and winds had increased to 55 kn. The storm was upgraded to hurricane Madeline with 70 kn winds near 13.1N 100.3W, 200 nautical miles south of Acapulco at 1800 GMT 6 October. The NEW YORK MARU, 200 nautical miles to the northeast, reported southeast 35 kn winds and heavy continuous rain. At 1815 GMT 6 October Air Force reconnaissance aircraft lo-

cated the center of Madeline at 13.1N 100.4W with winds estimated at 65 kn and pressure at 984 mb. Madeline's eye, first visible on satellite pictures at 1615 GMT, was reported as well defined with a 30 nautical miles diameter. By 0000 GMT 7 Ocotber Madeline, with 70 kn winds, had moved to 13.9N 101.0W or 200 nautical miles south-southwest of Acapulco. The TASMANIC, 150 nautical miles south-southeast of the center, reported southwesterly 35 kn winds and heavy intermittent rain. The THOMPSON LYKES, 180 nautical miles east of the hurricane, reported southerly 30 kn winds and continuous moderate rain. The SANTA MAGDALENA, 110 nautical miles northwest of Madeline, reported east-northeast 35 kn winds. At 1117 GMT 7 October Air Force reconnaissance aircraft again located the center of Madeline at 14.9N 102.0W or 170 nautical miles southwest of Acapulco and 160 nautical miles south of Zihuatanejo. Surface winds were estimated at 75 kn and the eye had increased to 40 nautical miles in diameter. Moving north over 82°F water with warmer (85°F) water along its eastern side, Madeline continued to intensify. By 1800 GMT winds had increased to 110 kn with the center at 15.4N 102.1W. The NORSE VIKING, 100 nautical miles northeast of the center and 30 nautical miles off the coast, reported easterly 60 kn winds and heavy continuous rain. The ECUADORIAN REEFER, 70 nautical miles east-northeast of the hurricane, reported southeasterly 55 kn winds and heavy intermittent rain. The ELIZABETH LYKES, 190 nautical miles east of Madeline, reported east-southeast 25 kn winds and heavy continuous rain. The WONORATO, 120 nautical miles northeast of the center, reported southeast 35 kn wind and heavy intermittent rain. By 0000 GMT 8 October Madeline, with 115 kn winds, had moved to 16.2N 102.0W or 140 nautical miles west of Acapulco and 100 nautical miles south of Zihuatanejo. The CHEVRON GENOA, 140 nautical miles to the east, reported east-southeasterly 45 kn winds and heavy intermittent rain. The EXXON BALTIMORE, 80 nautical miles to the north-northwest, reported northerly 50 kn winds. The MEONIA, 80 nautical miles to the east-northeast, reported east-southeast 45 kn wind with heavy continuous rain. At 0030 GMT 8 October Air Force reconnaissance aircraft located the center of Madeline near 16.2N 102.0W with winds estimated at 120 kn and pressure at 941 mb. A second penetration by the aircraft at 0209 GMT reported a pressure of 940 mb and eye diameter down to 30 nautical miles. Winds increased to 125 kn with gusts to 140 kn by 0600 GMT 8 October with the center near 17.0N 102.1W or 80 nautical miles west of Acapulco and 50 nautical miles southwest of Zihuatanejo. The AUSTRAL LIGHTNING, 50 nautical miles to the northwest, reported northerly 100 kn winds and heavy continuous rain. The FINN LEON HARDT, 120 nautical miles to the east, reported southeasterly 40 kn winds. By 0900 GMT the AUSTRAL LIGHTNING was 60 nautical miles south-southwest of the hurricane. The ship continued to report heavy continuous rain but winds had shifted to southwest 75 kn. Madeline moved onshore 45 nautical miles northwest of Zihuatanejo at 100 GMT 8 October. The hurricane weakened rapidly after moving inland.

TROPICAL STORM NAOMI, 25-29 OCTOBER

Tropical storm Naomi, the eighteenth and last tropical cyclone of the 1976 season, began as a disturbance at 1800 GMT 22 October near 11.0N 112.0W or 800 nautical miles south-southwest of Mazatlan. The DAVID STAF JORDAN, 180 nautical miles to the east-southeast, reported southerly 20 kn winds and the FORTHBANK, 90 nautical miles to the north reported northeast 20 kn winds. The disturbance moved west to 11.0N 115.0W by 1200 GMT 23 October then turned north to 15.0N 116.0W by 1200 GMT 24 October. Moving north over 83°F water with warmer (85°F) water on its eastern side, the disturbance began to intensify and was upgraded to a tropical depression with 30 kn winds at 0600 GMT 25 October near 16.8N 115.6W. Winds near the center increased to 35 kn by 1800 GMT 25 October and the depression was upgraded to tropical storm Naomi near 16.8N 115.8W, 660 nautical miles southwest of Mazatlan. The ARCO ENTERPRISE, 60 nautical miles to the west-northwest, reported northerly 35 kn winds and intermittent moderate rain. By 0000 GMT 26 October the storm had moved to 17.0N 116.0W and the ship TITUS, 100 nautical miles to the south-southwest, reported southwesterly 20 kn winds. Turning northeast, Naomi moved to 18.6N 114.2W by 1800 GMT 27 October. Winds near the center had increased to 45 kn. Satellite pictures showed Naomi with a diameter of about 200 nautical miles and a 200-300 nautical miles wide band of high level clouds flowing from the center east-northeast across central Mexico. By 0600 GMT 28 October the storm had moved to 19.8N 112.5W. The LEIDERKERK, 110 nautical miles to the west-northwest, reported northerly 25 kn winds. Accelerating northeast at 12 kn, Naomi moved to 21.5N 111.2W or 110 nautical miles southwest of the tip of Baja California and 280 nautical miles west-southwest of Mazatlan by 1800 GMT.

At 1816 GMT 28 October Air Force reconnaissance aircraft estimated the center of the storm near 21.6N 111.1W but was unable to confirm the position due to extensive low clouds. Surface winds were estimated at 40 kn and pressure at 1005 mb. By 0000 GMT 29 October Naomi had moved to 21.5N 110.0W or 90 nautical miles south of the tip of Baja and 225 nautical miles west-southwest of Mazatlan. The MEIKO MARU and the MITO MARU, 40 and 65 nautical miles to the east, reported southerly 30 kn winds. The MARCONA EXPORTER, 20 nautical miles to the south, reported southwest 30 kn winds and the BEL CARGO, 25 nautical miles to the north-northwest, reported winds as high as 50 kn. Accelerating northeast at 18 kn, Naomi moved to 22.8N 106.8W or 30 nautical miles southwest of Mazatlan by 1200 GMT. Naomi moved onshore near Mazatlan at 1330 GMT 29 October with 35 kn winds near the center. Moving rapidly northeast across the Sierra Madera mountains, the storm weakened rapidly.

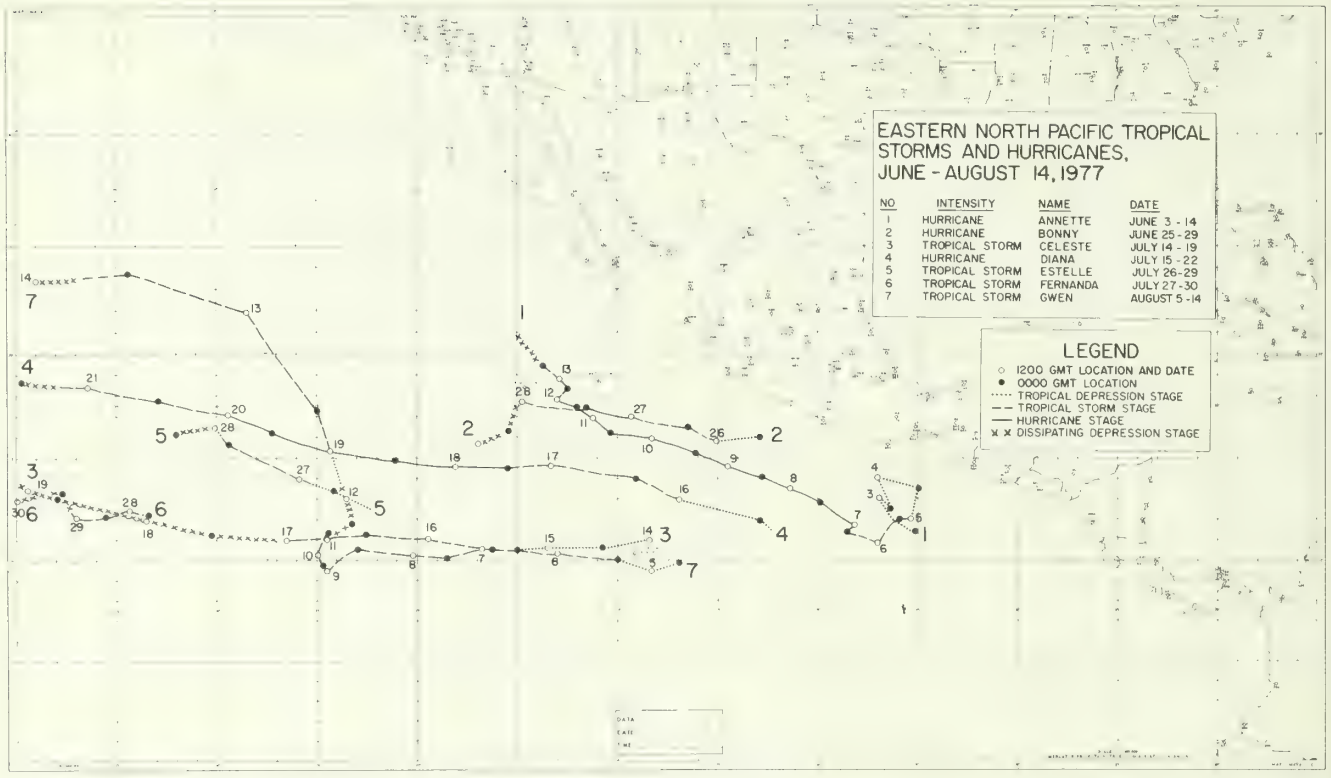

EASTERN NORTH PACIFIC TROPICAL STORMS AND HURRICANES, JUNE - AUGUST 14, 1977
NO INTENSITY NAME DATE
1 HURRICANE ANNETTE JUNE 3 - 14
2 HURRICANE BONNY JUNE 25 - 29
3 TROPICAL STORM CELESTE JULY 14 - 19
4 HURRICANE DIANA JULY 15 - 22
5 TROPICAL STORM ESTELLE JULY 26 - 29
6 TROPICAL STORM FERNANDA JULY 27 - 30
7 TROPICAL STORM GWEN AUGUST 5 - 14
LEGEND
1200 GMT LOCATION AND DATE
0000 GMT LOCATION
TROPICAL DEPRESSION STAGE
TROPICAL STORM STAGE
HURRICANE STAGE
DISSIPATING DEPRESSION STAGE

Figure 1

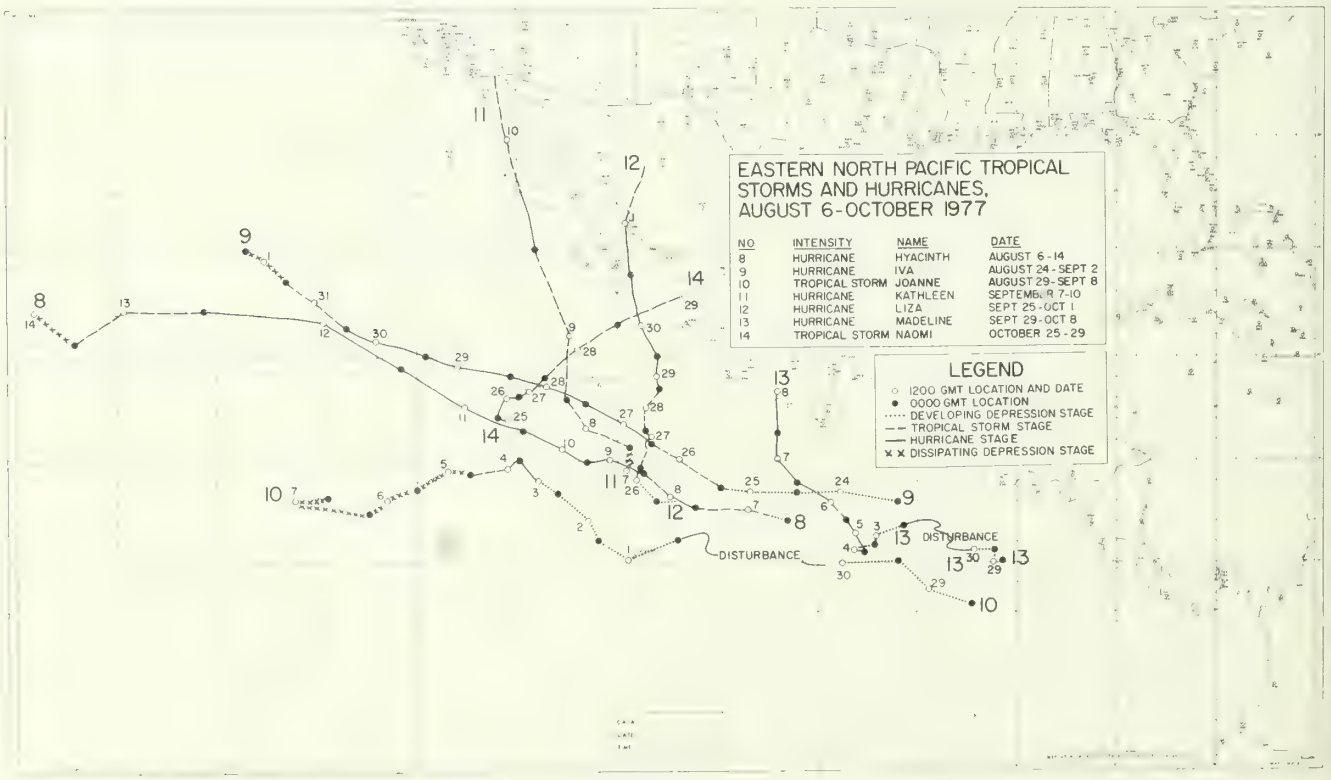

EASTERN NORTH PACIFIC TROPICAL STORMS AND HURRICANES, AUGUST 6 - OCTOBER 1977
NO INTENSITY NAME DATE
8 HURRICANE HYACINTH AUGUST 6 - 14
9 HURRICANE IVA AUGUST 24 - SEPT 2
10 TROPICAL STORM JOANNE AUGUST 29 - SEPT 8
11 HURRICANE KATHLEEN SEPTEMBER 7 - 10
12 HURRICANE LIZA SEPT 25 - OCT 1
13 HURRICANE MADELINE SEPT 29 - OCT 8
14 TROPICAL STORM NAOMI OCTOBER 25 - 29
LEGEND
1200 GMT LOCATION AND DATE
0000 GMT LOCATION
DEVELOPING DEPRESSION STAGE
TROPICAL STORM STAGE
HURRICANE STAGE
DISSIPATING DEPRESSION STAGE
DISTURBANCE
DISTURBANCE

Figure 2

Table 1. Monthly distribution of Eastern Pacific Tropical Cyclones, 1976*

	May	June	July	August	September	October	November	Total
Tropical depressions	0	2	0	2	0	0	0	4
Tropical Storms	0	0	3	2	0	1	0	6
Hurricanes	0	2	1	2	3	0	0	8
Total	0	4	4	6	3	1	0	18

*Cyclone ascribed to the month in which it began.

Table 2. Frequency of Eastern Pacific tropical storms and hurricanes combined by months and years*

Year	May	June	July	August	September	October	November	Total
1966	0	1	0	4	6	2	0	13
1967	0	3	4	4	3	3	0	17
1968	0	1	4	8	3	3	0	19
1969	0	0	3	2	4	1	0	10
1970	1	3	6	4	1	2	1	18
1971	1	1	7	4	2	2	1	18
1972	1	0	1	6	2	1	1	12
1973	0	3	4	1	3	1	0	12
1974	1	3	3	6	2	2	0	17
1975	0	2	4	5	3	1	1	16
1976	0	2	4	4	3	1	0	14
Total	4	19	40	48	32	19	4	166
Average	0.4	1.7	3.6	4.4	2.9	1.7	0.4	15.1

*Cyclone ascribed to the month in which it began.

Table 3. Number of Eastern Pacific tropical storms reaching hurricane intensity by months and years*

Year	May	June	July	August	September	October	November	Total
1966	0	1	0	4	2	0	0	7
1967	0	1	0	2	1	2	0	6
1968	0	0	0	3	2	1	0	6
1969	0	0	1	1	1	1	0	4
1970	1	0	1	1	0	1	0	4
1971	1	1	5	2	2	1	0	12
1972	1	0	0	6	1	0	0	8
1973	0	1	3	0	2	1	0	7
1974	0	2	2	4	2	1	0	11
1975	0	1	2	3	1	1	0	8
1976	0	2	1	2	3	0	0	8
Total	3	9	15	28	17	9	0	81
Average	0.3	0.8	1.4	2.5	1.5	0.8	0	7.4

*Cyclone ascribed to the month in which it began.

Table 4.--Eastern North Pacific tropical cyclone statistics, 1976[1]

Cyclone name/ number	Lifespan From:	To:	Date-time of classification/Location: Depression	Storm	Hurricane	Storm	Depression	Ended	Highest windspeed (kn)	From:	To:
Tropical cyclone One	June 2-3		021800 12.5, 113.0				030600 13.0, 116.0	030600 13.0, 116.0	30	021800 12.5, 113.0	030000 12.5, 113.0
Hurricane Annette	June 8-11		080000 11.1, 95.2	060600 12.0, 96.0	070600 10.8, 98.8	121200 17.8, 113.0	131800 19.2, 113.2	140600 20.9, 115.0	120	100000 15.2, 106.1	101800 16.1, 109.4
Hurricane Bonny	June 25-29		251800 16.0, 103.0	261200 15.8, 105.1	271200 17.0, 109.1	280000 17.3, 111.6	281200 17.7, 111.8	291800 16.2, 117.2	65	271200 17.0, 109.1	280000 17.3, 111.6
Tropical cyclone Four	June 28-30		281800 13.0, 96.0				300000 16.0, 95.5	300000 16.0, 95.5	30	290000 14.5, 95.3	300000 16.0, 95.5
Tropical storm Celeste	July 14-19		141200 11.0, 108.5	151800 10.8, 115.0			171200 11.0, 126.5	190600 13.5, 139.7	45	160000 10.9, 116.2	170600 11.0, 124.0
Hurricane Diana	July 15-22		151800 11.5, 102.5	161200 13.0, 107.0	171800 14.4, 114.3	201200 17.1, 129.4	211800 18.1, 138.0	220000 18.6, 139.8	85	181800 14.7, 119.8	190000 14.9, 121.1
Tropical storm Estelle	July 26-29		261800 12.5, 122.5	270600 14.0, 125.0			280600 16.2, 130.2	290000 16.2, 132.0	35	270600 14.0, 125.0	280600 16.2, 130.2
Tropical storm Fernanda	July 27-30		271800 12.4, 133.3	280600 11.9, 133.8			291800 13.0, 137.0	301200 13.0, 140.0	55	280600 11.9, 133.8	291800 13.0, 137.0
Tropical storm Gwen	August 5-14		050000 9.8, 107.0	060000 10.0, 110.0 121800 15.5, 124.0			111200 11.0, 124.5 140600 24.0, 136.2	111200 23.5, 139.0	55 45	080000 10.1, 118.5 121800 15.5, 124.0	090000 10.5, 123.0 130600 19.8, 126.8
Hurricane Hyacinth	August 6-11		061800 12.1, 102.2	070600 12.0, 102.0	091200 15.0, 110.2	130000 22.0, 130.5	140000 20.5, 137.0	141200 22.0, 139.0	100	100600 15.1, 112.1	111200 17.5, 117.5
Tropical cyclone Eleven	August 7-8		071800 14.2, 134.0					081800 14.0, 134.6	25	071800 14.2, 134.0	081800 14.0, 134.6
Tropical cyclone Twelve	August 16-19		160000 15.5, 120.9				190000 15.0 132.0	190000 15.0, 132.0	30	160000 15.5, 120.9	180600 14.5, 129.0
Hurricane Iva	Aug. 24-Sept. 2		240000 13.0, 96.0	251800 13.5, 104.0	261800 15.2, 107.8	301200 20.7, 122.0	010000 23.4, 126.1	020000 24.9, 128.5	115	280600 18.2, 112.1	290000 19.0, 115.2
Tropical storm Joanne	Aug. 29-Sept. 8		290000 7.8, 92.2	031200 14.0, 114.0			050000 14.1, 117.3	080600 12.5, 124.5	40	031200 14.0, 114.0	041200 14.6, 115.6
Hurricane Kathleen	Sept. 7-10		070600 15.0, 109.0	080000 15.5, 109.3	100000 25.0, 114.0	100600 26.8, 114.4		101200 30.0, 115.5	70	100000 25.0, 114.0	100600 26.8, 114.4
Hurricane Liza	Sept. 25-Oct. 1		251800 13.0, 107.0	261800 14.0, 108.5	281800 18.0, 108.1	011800 28.8, 108.6		011800 28.8, 108.6	115	301800 22.2, 109.1	010600 25.2, 109.3
Hurricane Madeline	Sept. 29-Oct. 8			290000 10.0, 90.5 050000 10.5, 97.5	061800 13.1, 100.3	081200 18.2, 102.0	291200 10.0, 91.1	081200 18.2, 102.0	35 125	290000 10.0, 90.5 080600 17.0, 102.1	291200 10.0, 91.1 081200 18.2, 102.0
Tropical storm Naomi	October 25-29		250600 16.8, 115.6	251800 16.8, 115.8				291200 22.8, 106.8	45	271800 18.6, 114.2	280000 18.9, 113.7

[1]All dates, times GMT; all latitudes north, all longitudes west.

TYPHOONS OF THE WESTERN NORTH PACIFIC, 1976

Extracted from Annual Typhoon Report, 1976, U.S.
Fleet Weather Central, Joint Typhoon Warning Center,
Guam, Mariana Islands

In 1976 the number of tropical cyclones remained below the long-term average. There were 25 tropical cyclones of which 14 attained typhoon intensity, including 4 supertyphoons (table 1). March was the only month without a tropical cyclone, while February, March, November, and December were without a typhoon (tables 2 and 3).

The storm season had an early debut with typhoon Kathy forming in January. The near equatorial trough was firmly established by April and maintained itself throughout most of the remainder of the year. An exception was late September and most of October, when the westerly flow along the Equator gave way to easterly trades.

There were 53 days of multiple-storm situations. As early as May, simultaneous storms were generated when Olga and Pamela tracked across the western Pacific causing extensive damage to the Philippines and Guam. June through September saw six additional two-storm situations and one three-storm situation. Although the season started quickly, the latter part of the season tapered off earlier than normal. For 36 days in September and October, normally a very active period, no warnings were issued. Not since 1958, when 30 days passed without a depression, has such a lull in activity occurred during this time of the year.

Most of the damage during 1976 was associated with three of the four supertyphoons. Damage estimates to public and private property for Pamela and Fran combined exceeded $1 billion. Fran also left 133 persons dead in Japan. While Pamela was responsible for 10 deaths on Truk, the supertyphoon miraculously caused only 1 fatality as it passed over Guam. Therese sank 12 ships and left 1,300 homeless from the heavy rains in southern Japan. During May, Olga caused enhanced monsoonal rains over the Philippines which led to over 200 deaths and left thousands homeless. In addition, typhoon Billie generated great waves, resulting in the drowning of 41 fishermen and swimmers as the storm passed through the Ryukyu Islands. Billie was subsequently responsible for four deaths in Taipei and caused millions of dollars of damage to facilities during passage over northern Taiwan. Although Marie caused no known fatalities, she caused millions of dollars damage to crops and structures in the Palau Islands. In September, Iris sank a Panamanian freighter and killed four persons as she tracked slowly across the South China Sea.

The cyclone tracks shown in figures 1 to 5 are based on post-storm analysis. Dates include the period from when the storm was first detected until it dissipated or became extratropical. The maximum winds are overwater estimates of sustained windspeeds for a 1-minute averaging period.

Individual typhoons are described in the following narratives, Times are GMT.

KATHY

The first typhoon of the 1976 season, a January storm, was initially detected by ship reports on the morning of the 25th as a cyclonic circulation unusually close to the Equator. During the next 3 days the disturbance intensified as it moved northeastward and then northwestward. On the morning of the 29th, reconnaissance aircraft indicated the circulation was nearly at tropical storm intensity. During the next 48 hours, tropical storm Kathy moved northwestward at 12 to 13 kn.

Late on the 30th, a deep midlatitude trough moved eastward into the Philippine Sea, weakening the midtropospheric subtropical ridge, and in response Kathy intensified to a typhoon and moved northward, slowing to 10 kn. By that evening, the typhoon was drifting northward through the weakness in the ridge and still intensifying slowly. The following day she attained maximum intensity of 80 kn. At 0600 on the 30th, the TAKAMATSU MARU reported 55-kn winds 160 miles northeast of Kathy.

MARIE

Embedded in westerly flow, Kathy began to accelerate to the northeast and by the afternoon of February 1 had weakened to a tropical storm. Strong westerly shear and cooler temperatures rapidly stripped the storm of its tropical characteristics, and Kathy became extratropical late that day. This extratropical low later produced copious precipitation over the Hawaiian Islands with Wailua, Oahu, recording 18.81 inches of rain during February 6 to 8.

On April 1, a tropical dusturbance was detected by satellite near 10°N, 140°E. The system drifted slowly southward for the next 2 days. At 0030 on the 3d, a formation alert was issued when synoptic data indicated the system had intensified to 25 kn. The system was upgraded to tropical storm Marie on the 3d when synoptic data confirmed aircraft reports of 35-kn winds.

Marie intensified and attained typhoon strength by 0600 on the 5th. Twelve hours later, the typhoon had acquired a 6-kn movement to the west-northwest and maintained 65-kn winds for the next 48 hours.

On the evening of the 7th the typhoon once again began to intensify. At 1500 Marie passed 40 miles north of Palau with peak gusts of 75 kn, and a minimum sea-level pressure of 993 mb was recorded at Koror. While no deaths or injuries were reported, damage of more than $4 million was incurred on the Palau Islands. Crop destruction was extensive, as was damage to buildings and public utilities. As a result, Palau was declared a major disaster area.

On the 8th Marie turned northward and recurved. Dur-

ing the typhoon's westernmost position at 2100 on the 10th, the system reached its maximum intensity of 115 kn. The lowest sea-level pressure was 929 mb recorded by aircraft at 2031. Marie maintained 115-kn winds for 24 hours as she moved northeastward at 11 kn. By 1800 on the 11th, the storm began to weaken while accelerating on a northeasterly track. Two days later the final warning was issued as Marie became extratropical.

OLGA

Originally, Olga was tracked by satellite as a tropical disturbance moving southwestward and following the center of the upper-level anticyclone. After 1200 on May 12, a more climatological track toward the westnorthwest was observed, but it was moving at only half the normal speed for this time of year. This movement along the southern edge of the subtropical ridge persisted through the afternoon of the 13th when Olga was upgraded to a tropical storm. Later that night satellite data indicated the presence of a second circulation 120 miles east of the storm's center. The original center dissipated by the 14th, and the convective energy consolidated around this second center. The relocated system then proceeded westnorthwestward, while it slowly intensified and attained tropical storm intensity for the second time.

On the 18th, Olga began a counterclockwise loop and slowly intensified despite the unfavorable upper-level shear. On the 20th, Olga completed her loop and attained typhoon intensity. The storm then tracked toward the west at 6 kn and continued to intensify. Between aircraft reports at 0330 and 1947 on the 20th there was a 44-mb drop in central pressure from 978 to 934 mb, a rate of 2.7 mb per hour. With this rapid deepening, Olga made landfall on the east side of Luzon at 0000 on the 21st with winds estimated at 100 kn.

The small core of high winds subsided quickly after landfall. Olga's center meandered toward the southwest along the east coast of Luzon, passing near Baler Bay with 45-kn winds at storm center. Seeking the path of least resistance, Olga tracked through the lowlands of Luzon and exited the island through Lingayen Gulf on the 24th. During her slow journey across Luzon, Olga enhanced the southwest monsoon over southern Luzon, bringing rains in excess of 50 inches at Cebu Point and perhaps higher at other areas. The resulting floods contributed to over 200 deaths and left thousands homeless. Olga dissipated to the west of Okinawa on the 27th as she was absorbed into a subtropical disturbance west of the island.

PAMELA

Pamela was the first supertyphoon of the season. Destined to become one of the more destructive storms of history, Pamela was first detected as a tropical disturbance on the morning of May 13. On the 14th aircraft indicated surface winds near 40 kn and a sea-level pressure of 998 mb; at 0600 the depression was upgraded to tropical storm Pamela.

The next morning satellite data showed Pamela moving toward the south-southeast. By 2200 Truk had a surface pressure of 997.9 mb and 30 kn northeasterly winds. Later that afternoon reports indicated destructive winds at Satawan Atoll. Reconnaissance aircraft observed an extensive area of 55 to 65 kn flight-level winds with surface winds estimated as high as 100 kn. Pamela at this time was a small, but intense typhoon. The maximum winds were located on the south side of the 150-mile diameter central dense overcast.

Pamela continued to intensify as she moved erratically at 3 to 6 kn, turning northwestward on the morning of the 17th. From the morning of the 16th until the morning of the 18th, Satawan Atoll continued to be buffeted with southwesterly and southerly surface winds of 50 to 55 kn. Damage was widespread, but no deaths were reported.

By the morning of the 18th Pamela had accelerated to 7 kn, passing within 50 miles of Truk where 40-kn winds were observed. At 0327 aircraft found maximum surface winds of 85 kn, a minimum pressure of 951 mb, and a circular eye 10 miles in diameter. From the afternoon of the 17th to the afternoon of the 18th, Truk recorded nearly 11 inches of rain which initiated mud slides killing 10 persons. Massive damage was inflicted on crops.

From 0600 on the 18th to 0600 on the 19th, typhoon Pamela moved toward the northwest at an average speed of 9 kn, intensifying at a rate of 10 kn each 6 hours. At 1200 on the 19th, Pamela reached supertyphoon intensity of 130 kn with gusts to 160 kn and maintained this intensity for 18 hours. At 2112 on the 19th, reconnaissance aircraft reported the minimum measured sea-level pressure at 921 mb. By the afternoon of the 20th, an eastward-moving, short-wave trough had created a weakness in the midtropospheric subtropical ridge north of Pamela. This, coupled with an elongated high-pressure cell east of the typhoon, forced Pamela to acquire the north-northwestward track which would bring it over Guam.

During the next 24 hours northeasterly winds on Guam slowly intensified as Pamela approached the island. At 0315 on the 21st, reconnaissance aircraft from the 54th Weather Reconnaissance Squadron, Andersen AFB, Guam, fixed the typhoon 30 miles southeast of the island. Less than 90 minutes later the northwestern edge of the eye was over the southeast coast of Guam.

The large, relatively calm eye, some 20 miles in diameter, required up to 3 hours to cross the center of the island. Both Andersen AFB and the National Weather Service at Taguac continually experienced winds exceeding 50 kn as the eye passed south of these stations. Most installations which had wind indicators lost their anemometers prior to the peak winds. The maximum observed wind gust was 138 kn reported by the NWS Taguac at 0946 on the 21st. The minimum recorded surface pressure was 931.7 mb at NAS Brewer Field, some 5 miles northeast of the center. The lowest pressure of approximately 930 mb (indicated by aircraft and land stations) supports estimated peak sustained winds of 120 kn with gusts of 145 kn.

Pamela's winds gusted as much as 80 kn between peak and lull in a matter of minutes, resulting in extremely large pressure differences (60 to 70 lbs per sq ft) on windward and leeward sides. Few unreinforced structures were able to withstand the intermittent pressure and wrenching effects. NWS Taguac recorded 33 inches of rain during Pamela's passage, with 27 inches falling in a 24-hour period.

Although Pamela's winds were 25 kn weaker than those of typhoon Karen, which flattened Guam in November 1962, the slow 7-kn movement rendered Pamela more destructive. The 226-sq-miles island was buffeted by winds in excess of 100 kn for 6 hours, by winds of typhoon force for 18 hours, and by winds exceeding 50 kn for 30 hours. Despite extensive preperations, damage to civilian and military facilities was severe, exceeding $500 million. Ten small ships and tugs which had sought refuge in Apra Harbor were either sunk or run aground, and numerous other small craft were sunk or damaged. One ship, the U.S. Coast Guard cutter BASSWOOD, courageously rode out the storm anchored in Apra Harbor, where it recorded a peak gust of 120 kn and a minimum sea-level pressure of 933.1 mb.

Miraculously, only one death occurred on guam due to Pamela's passage. This low loss of life was attributed to the timely and accurate forecasts issued on the storm.

After devastating Guam, Pamela maintained 120-kn intensity for an additional 36 hours and moved northwestward at an average speed of 10 kn. Saipan had gusts of 55 kn and 10 inches of rain as the storm passed 120 miles west of the island.

On the morning of the 23d, Pamela, still packing winds of 115 kn, slowed to 8 kn and by evening passed through a weakness in the midtropospheric subtropical ridge, recurving to the northeast. At 2000 on the 24th, Pamela passed 15 miles east of Iwo Jima, blanketing the island with 75-kn winds. By the 25th the system had weakened to a tropical storm, and by the afternoon of the 26th Pamela had become extratropical.

RUBY

On the morning of June 23 satellite data indicated a disturbance had organized into a tropical depression about 450 miles southeast of Manila and was moving westward. Reconnaissance aircraft at 1205 indicated that the depression had attained tropical storm intensity; flight-level winds of 70 kn and a central pressure of 987 mb were reported. Radar-reports from Catanduanes Island further indicated that tropical storm Ruby was moving northwestward. Late on the 23d, Ruby had intensified with an eye and surface winds in excess of 70 kn.

On the afternoon of the 25th, Ruby began her passage over central Luzon. Still tracking northwestward, she crossed the eastern coast 10 miles south of Cape Ildefonso with winds of 80 kn. Official reports of damage resulting from Ruby's passage were unavailable. However, Pacific Stars and Stripes reported in their July 4 issue that 16 persons in the province of Benguet were killed as a result of mud slides triggered by heavy rains.

Passage over the Philippines weakened Ruby to a tropical storm. On the morning of the 26th, she began to move northward, passing 35 miles east of Pratas Island on the 27th where 35-kn winds and a sea-level pressure of 985 mb were observed. By the morning of the 28th, satellite data indicated that Ruby had reintensified.

As Ruby traveled eastward through the Bashi Channel, radar reports from Kao-hsiung indicated eastward movement and intensification. Reconnaissance aircraft at 1600 July 1 recorded the lowest pressure, 934 mb, and indicated that typhoon Ruby was moving toward the northeast.

Ruby maintained typhoon intensity until the night of the 3d when she again moved into a hostile environment. Meteorological satellite data at 2312 on the 3d indicated that Ruby had finally become extratropical after a 10-day trek.

SALLY

Sally was first detected on June 23d as a weak disturbance 210 miles south of Guam. The disturbance remained quasi-stationary as it slowly intensified. On the 24th the system intensified to 30 kn and began moving northwestward at 7 kn. Intensification was slow during the subsequent 30 hours. By the 26th Sally began more rapid intensification, attaining typhoon intensity by 1800 and maximum intensity of 115 kn 36 hours later. Reconnaissance aircraft reported a 40-mb drop in pressure (964 to 924 mb) from 0716 on the 27th to 0230 on the 28th.

By 1200 on the 27th, Sally had slowed to 6 kn and had taken a more northward track. She moved slowly northward, then north-northeastward, as Ruby, some 820 miles to the west, attained typhoon force and began moving toward the east. By 1200 on the 29th the distance between the two typhoons had closed to 790 miles. Sally responded by recurving to the northeast. At 0000 on the 30th, the KAVALEROVO reported sustained 50-kn winds 120 miles northwest of the storm which still possessed 95-kn winds.

At 1800 on the 30th, Chichi Jima (40 miles northeast of Sally) reported southeasterly winds of 30 kn and a sea-level pressure of 980.5 mb. Twelve hours later the rapidly moving storm was 180 miles east-northeast of the island. On July 2 the system began to weaken rapidly and was extratropical on the 3d.

THERESE

Near the end of the first week in July a tropical disturbance, moving slowly westward, was detected by satellite near 9°N, 160°E. On the 10th the disturbance intensified rapidly, and aircraft observed winds of tropical storm intensity. At 0000 on the 11th, the first warning was issued on tropical storm Therese with winds of 40 kn near the center. She continued to intensify while accelerating slowly on

a west-northwesterly course. By 0000 on the 12th, Therese had reached typhoon intensity. At about 1200 explosive deepening began to occur. Reconnaissance aircraft indicated that from 0805 on the 12th until 0537 on the 13th the storm's central pressure plummeted 66 mb. Therese became the second supertyphoon of the season, attaining a minimum surface pressure of 903 mb and maximum winds of 135 kn at 0600 on the 13th. She maintained supertyphoon intensity for the next 18 hours, and at 2100 on the 13th passed 30 miles northeast of Saipan with 130-kn winds near the center. Saipan sustained only minor damage with observed winds estimated at 75 to 100 kn.

Therese began to accelerate and slowly weaken as she tracked farther north. With 90-kn winds on the morning of the 17th, Therese passed 60 miles northeast of Okinawa, where 41-kn gusts were recorded at Kadena Airbase. Directly ahead of the storm, Tokuno-Shima was reporting 50-kn winds. At 1200 the island experienced eye passage with a recorded central pressure of 958 mb.

At 1200 on the 18th, Meshima reported sustained winds of 65 kn and minimum sea-level pressure of 971.2 mb. Shortly thereafter Terese passed 10 miles east of the island as the storm turned to the northeast toward the west coast of Kyushu. After crossing the coast, the storm continued to dissipate over the mountainous terrain. Prior to dissipation, Therese brought nearly 20 inches of rain to the island of Kyushu. The storm flooded more than 1,000 homes and sank 12 ships. During the onslaught, 3 persons were killed, more than 1,300 were rendered homeless, and damage to crops was estimated in the millions of dollars.

ANITA

As early as July 18, the weak circulation which eventually developed into Anita was tracked by satellite. On the 22d Wilda and Anita were developing simultaneously.

As Anita continued to intensify, the size of the storm remained relatively small. Aircraft reconnaissance on the 23d found only a narrow band of strong winds near the storm's center. Anita continued to intensify, reaching a peak of 65 kn and a minimum sea-level pressure of 979 mb at 1200 on the 23d.

About the time Anita attained typhoon intensity, she began to accelerate northward. Anita's typhoon intensity lasted only 12 hours. Satellite data at 2214 on the 23d indicated that the storm had lost most of its hardcore convection. Thus, Anita was downgraded to a tropical storm at 0000 on the 24th. The system continued to weaken, crossing western Kyushu late on the 24th with minimal tropical storm intensity. On the 25th, the remains of Anita entered the Sea of Japan and became extratropical at 0600 while moving northward at 14 kn.

BILLIE

On August 3, a tropical depression moved toward the northwest in the direction of Saipan. It passed over Saipan between 1700 and 1800 with 15-kn southwesterly winds, a sea-level pressure of 999.8 mb, and a 6-hour rainfall of 3.86 inches. At 1800 the depression was designated tropical storm Billie.

The following morning the storm was tracking southwestward at 4 kn with 40-kn winds. Billie continued to slowly intensify as outflow in all but the northeast quadrant remained good.

During this period of erratic movement it appeared that Billie would be a threat to Guam. By the 6th, however, the upper low had moved considerably westward, eliminating its restricting influence on the tropical cyclone. Billie accelerated on a northwestward track and attained typhoon intensity by 1800 on the 5th.

Billie underwent explosive deepening during the night of the 6th. Reconnaissance aircraft at 1448 on the 6th and 0340 on the 7th indicated that during this period the eye temperature at 700 mb rose from 17°C to 26°C, and the central pressure fell 46 mb. The 914 mb reported at 0350 on the 7th was the minimum pressure attained by Billie. Maximum surface winds were estimated at 120 kn. At 0800 on the 7th, the TEGURASAN MARU encountered southwesterly winds of 50 kn and a minimum sea-level pressure of 992.3 mb while about 70 miles south-southeast of the center. At 1200 typhoon Billie reached her maximum intensity of 125 kn.

Billie moved into the southern Ryukyu Islands by 0000 on the 9th. Miyako Jima reported its lowest sea-level pressure of 964.4 mb at 0400 while experiencing 44-kn sustained winds. Two hours later Ishigaki Shima reported a pressure of 952 mb and northwesterly winds of 45 kn. At about 0700 typhoon Billie passed over the northern tip of Ishigaki Shima with maximum winds estimated at 95kn; 2 hours later the island reported 91-kn southwesterly winds gusting to 108 kn. Newspaper reports stated that huge waves south of Japan drowned 41 fisherman and swimmers along Japan's Pacific coast.

After her destructive whirl through the Ryukyus, Billie headed for Taipei, traveling westward at 14 kn. At 1200 on the 9th, Penkiayu reported northeasterly winds of 77 kn. Taipei International Airport experienced 30-kn sustained winds with gusts to 65 kn and a sea-level pressure of 957.3 mb at 1600; about 1 hour later the eye passed just south of Taipei. Billie's passage over Taiwan was highly destructive. Reports indicated 4 dead, 24 injured, and 8 missing. Nearly 1,000 homes were destroyed in the onsalught. Three ships were sunk and seven others, including the ALVA MAERSK, were severely damaged. Damage to power transmission facilities was estimated at $2,630,000.

Typhoon Billie exited Taiwan and moved toward the People's Republic of China on a west-northwestward track. By morning on the 10th, Billie had weakened to a tropical storm and slowed to 11 kn. At 0000 on the 10th, P'ing-t'an reported 60-kn winds from the north-northeast and a sea-level pressure of 981.2 mb. About 0300 Billie went ashore 25 miles southeast of

P'ing-t'an. Within hours the storm dissipated over the rugged terrain of eastern China.

FRAN

This system was first detected on the afternoon of September 1 as an area of convective activity 200 miles northeast of Ponape. There was no significant development for 2 days. On the 3d satellite data indicated that the disturbance had strengthened, and it was upgraded to tropical storm Fran after reconnaissance aircraft at 0339 on the 4th recorded a central pressure of 997 mb. By 0000 on the 5th the storm was 90 miles south of Guam on a northwesterly track. Nine hours later Fran passed 20 miles west of Guam, where maximum sustained winds of 30 kn with gusts to 41 kn were reported. At 0245 on the 6th, aircraft reported maximum surface winds at 65 kn, and a circular eye 30 miles in diameter was observed. Based on this information and a recorded central pressure of 977 mb, tropical storm Fran was upgraded to a typhoon. She began to deepen explosively. On the 7th at 0307 reconnaissance aircraft recorded a central pressure of 916 mb and observed maximum surface winds estimated at 130 kn.

For 24 hours the upper tropospheric outflow remained unhindered, permitting the storm to maintain its maximum 130-kn supertyphoon intensity. On the 7th at 2109 the central pressure reached its lowest observed level of 913 mb.

As Fran traveled through the Ryukyu Islands, she passed 60 miles east of Okinawa. Naha recorded a maximum sustained surface wind of 55 kn with gusts to 73 kn. Some damage was experienced at Kadena Airbase on Okinawa. By evening on the 10th Fran had slowed to 2 kn and during the subsequent 36 hours drifted on an erratic path toward the west. On the night of the 11th Fran began to accelerate northward.

During this period of slow, erratic movement, the storm's destructive winds caused several maritime mishaps. JICS ran aground at Tibjima, Minamata Bay, on September 12, and the KYOYU MARU reportedly broke in two in the Bungo Straits on the 11th.

On the afternoon of the 12th the storm accelerated and moved toward the north-northeast. Passing over Kyushu on the evening of the 12th, typhoon Fran weakened to tropical storm intensity. Twelve hours later as the storm traveled over the cooler Sea of Japan, it lost its tropical features becoming extratropical at 0600 on the 13th.

Typhoon Fran's slow movement through the Tokara Island group, over Kyushu, and into the Sea of Japan caused significant damage and loss of life. It was reported to be the most destructive tropical cyclone affecting Japan in the last 10 years. The Japanese National Police Agency confirmed a total of 133 persons dead, 32 missing, and 227 injured as a result of Fran's torrential rains and strong winds. According to the Japan Times, damage to private and public facilities was estimated at approximately $572 million.

HOPE

Hope was first detected near 17°N, 157°E, on the morning of September 13 as a region of deep, but unorganized convection at the eastern edge of the intense monsoon trough. At 0600 on the 14th, the AMERICAN CHIEFTAIN, 125 miles northeast of Hope, reported 45-kn southeasterly winds and a minimum sea-level pressure of 998.7 mb. Some 200 miles south-southeast of the system, the AMERICAN LYNX reported southwesterly 40-kn winds and a minimum sea-level pressure of 998.8 mb. The first warning on tropical storm Hope was issued at 0702.

On the 15th Marcus Island reported maximum sustained surface winds of 54 kn and a minimum sea-level pressure of 988.6 mb as Hope passed 90 miles to the south-southwest. The typhoon attained its maximum intensity of 70 kn at about 1800 on the 15th approximately 240 miles northwest of Marcus Island. During the morning of the 16th, typhoon Hope began to weaken as she slowed to 12 kn. Twenty-four hours later the storm had weakened to 45 kn and was moving toward the north-northeast at a speed in excess of 30 kn. The final warning was issued at 1800 on the 17th when strong shear, cooler sea surface temperatures, and incursion of cool air stripped Hope of her tropical nature.

IRIS

On September 13 satellites gave the first indication of what was to become the only typhoon of the year to originate in the South China Sea. By 0600 on the 15th, satellite and synoptic data indicated some intensification, and the tropical depression was upgraded to tropical storm Iris.

On the 17th at 0420 aircraft reconnaissance observed typhoon-strength surface winds 40 miles southeast of the storm's center and recorded a central pressure of 983 mb. At 1200 Pratas Island recorded winds of 40 kn and a sea-level pressure of 997.3 mb. Three hours later Iris passed 90 miles south-southwest of the island with maximum winds of 75 kn. At 2100 Pratas recorded a minimum sea-level pressure of 997.1 mb and winds of 33 kn. At 0600 on the 19th, Iris, still maintaining 75-kn winds, passed 35 miles south of Shan-Ch'uan-Tao where the station reported a sea-level pressure of 988.1 mb and winds of 60 kn. At 2100 Iris made landfall 30 miles north of Chancian on the Luichow Peninsula. The cyclone dissipated rapidly as it crossed the peninsula. Fifteen hours later it had weakened to a 35-kn tropical storm and entered the Gulf of Tonkin. The final warning was issued at 0600 on the 21st.

On the 18th Iris had passed 90 miles south of Hong Kong, where 68-kn winds were observed. Hong Kong newspaper reports indicated that more than a dozen people were injured by flying debris. Also on the 18th, 50 miles east of Pratas and 50 miles north of the storm, the CHIEH LEE, a 5,000-ton Panamanian freighter, sank. According to newspaper reports, 13 crewmen were rescued, while 4 were known dead and 11 others missing.

JOAN

Joan was initially observed on September 17 as a tropical disturbance with a weak surface cyclone centered near 13°N, 155°E. The disturbance intensified and became a depression on the 19th at 0600; at 1800 it was upgraded to tropical storm Joan, 325 miles south-southwest of Marcus Island.

By 0600 on the 21st, Joan attained typhoon intensity while at the midpoint of recurvature. Six hours later, typhoon Joan attained her peak intensity of 70 kn, and a distinct, well-defined eye was visible on satellite data with tightly wrapped convective bands surrounding the center. At 0000 on the 21st, Joan passed 125 miles west of Marcus Island, where 33-kn surface winds were observed. By the 22d, Joan had weakened slightly but still maintained typhoon intensity as she accelerated to 11 kn toward the northeast. Joan continued to track northeastward accelerating to 31 kn by the 24th and becoming extratropical at 1200. The remains of typhoon Joan continued to disrupt shipping lanes in the western Pacific. At 1200 on the 24th, the GUELIO GRAF reported sustained winds of 65 kn and a sea-level pressure of 975 mb while sailing 60 miles east of the extratropical low.

LOUISE

Louise, the 14th and final typhoon of the season, was also the most intense of 1976. The disturbance that was to become Louise was first detected by satellite data on the morning of October 27 about 75 miles east of Truk. During the next 3 days the disturbance showed little intensification as it meandered through the northern Truk District. Late on the 29th the system began moving toward the west, and by the morning of the 30th satellite data indicated that it was intensifying. At 1800 the depression was upgraded to tropical storm louise. At 0311 on November 1, aircraft observed 70-kn flight-level winds and found that the central pressure had fallen to 976 mb. At 0600 Louise was upgraded to a typhoon while 100 miles northwest of Ulithi Atoll. On the afternoon of the 1st Louise acquired a northwesterly track. Almost simultaneously, the typhoon commenced more rapid deepening, attaining 105-kn winds by the next morning. From 0311 on the 1st to 0310 on the 2d, reconnaissance aircraft indicated a fall in the central pressure of 43 mb. Further deepening to 905 mb occurred by 1435 on the 2d.

During early morning on the 3d supertyphoon Louise attained maximum intensity of 140 kn, which she maintained for nearly 36 hours. The lowest recorded pressure was 895 mb observed by aircraft at 0830 on the 3d. From 0000 on the 4th until 1800 on the 6th, Louise weakened at an unusually slow rate of 5 kn, per 6 hours. Late on the afternoon of the 5th, Louise had weakened to 115 kn and began to accelerate toward the northeast.

At 0300 on the 6th, Minamidaito Jima, 40 miles north-northeast of Louise, reported east-northeasterly winds of 40 kn and a sea-level pressure of 984.8 mb. Two hours later the storm passed 15 miles southeast of the island with maximum winds estimated near 95 kn. By the 7th, cooler sea surface temperatures and very strong vertical shear were taking their toll as Louise moved north of 30°N. Reconnaissance aircraft at 0359 indicated that Louise was rapidly losing her tropical characterestics and becoming extratropical. The Airborne Reconnaissace Weather Officer also observed that the lower half of the wall cloud was "rotating rapidly," a phenomenon sometimes reported when a storm is becoming extratropical.

As an extratropical system, the remains of Louise moved northward to combine with another surface low. The resulting system deepened to 947 mb by the 10th and became one of the most severe extratropical storms of the year, ultimately producing surf in excess of 30 feet in the Hawaiian Islands.

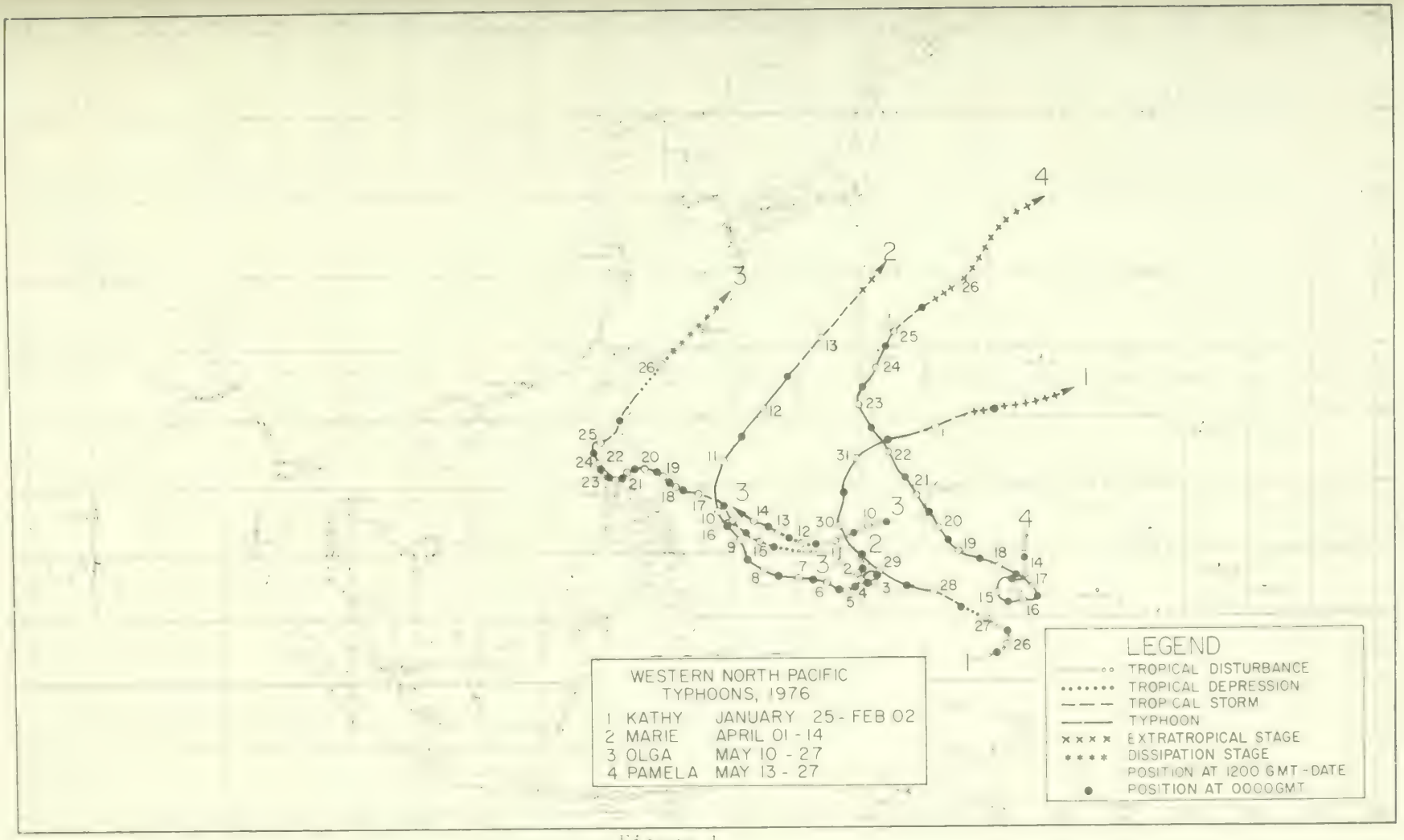

WESTERN NORTH PACIFIC
TYPHOONS, 1976
1 KATHY JANUARY 25 - FEB 02
2 MARIE APRIL 01 - 14
3 OLGA MAY 10 - 27
4 PAMELA MAY 13 - 27
LEGEND
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON
EXTRATROPICAL STAGE
DISSIPATION STAGE
POSITION AT 1200 GMT - DATE
POSITION AT 0000GMT

Figure 1

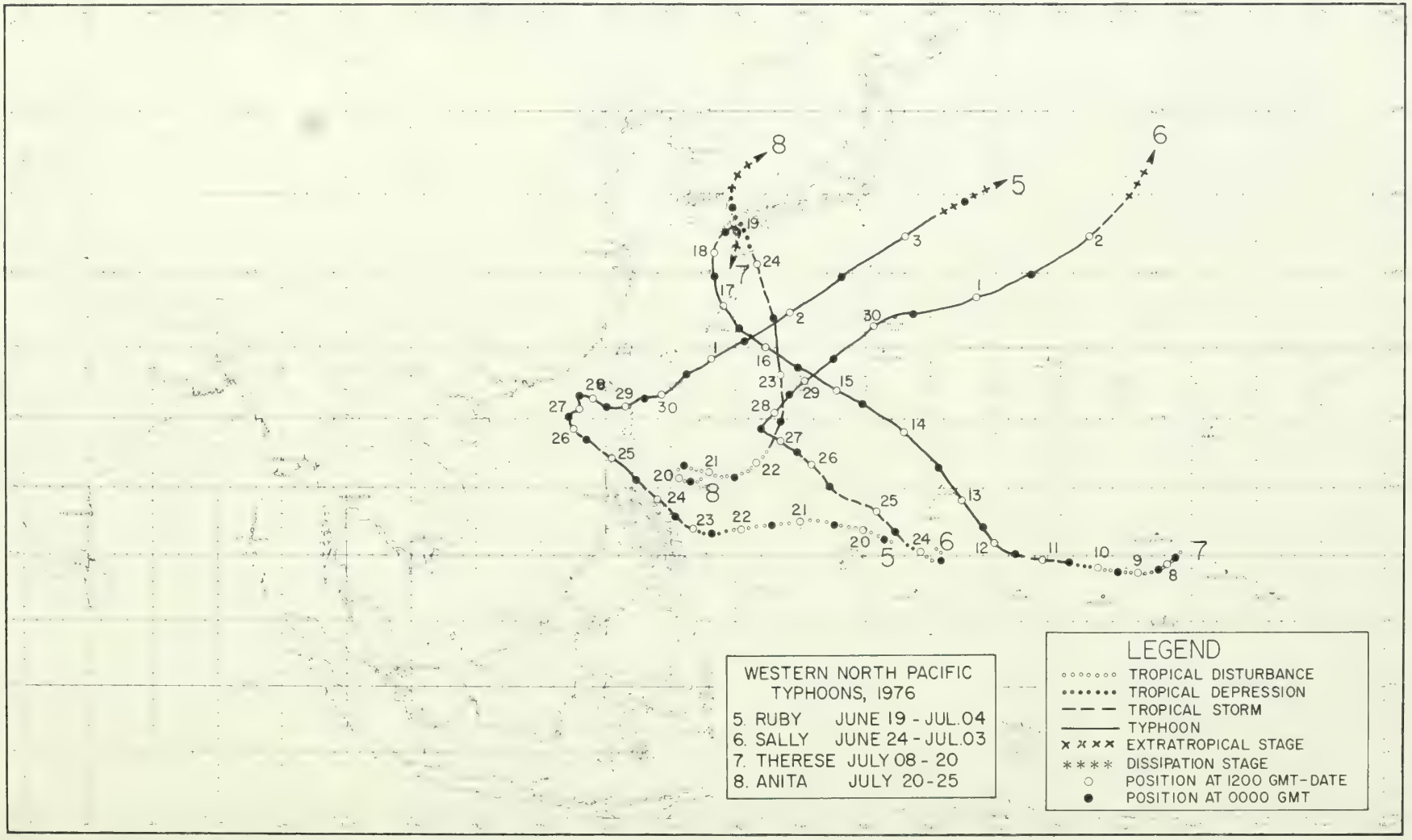

WESTERN NORTH PACIFIC
TYPHOONS, 1976
5. RUBY JUNE 19 - JUL. 04
6. SALLY JUNE 24 - JUL. 03
7. THERESE JULY 08 - 20
8. ANITA JULY 20-25
LEGEND
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON
EXTRATROPICAL STAGE
DISSIPATION STAGE
POSITION AT 1200 GMT-DATE
POSITION AT 0000 GMT

Figure 2

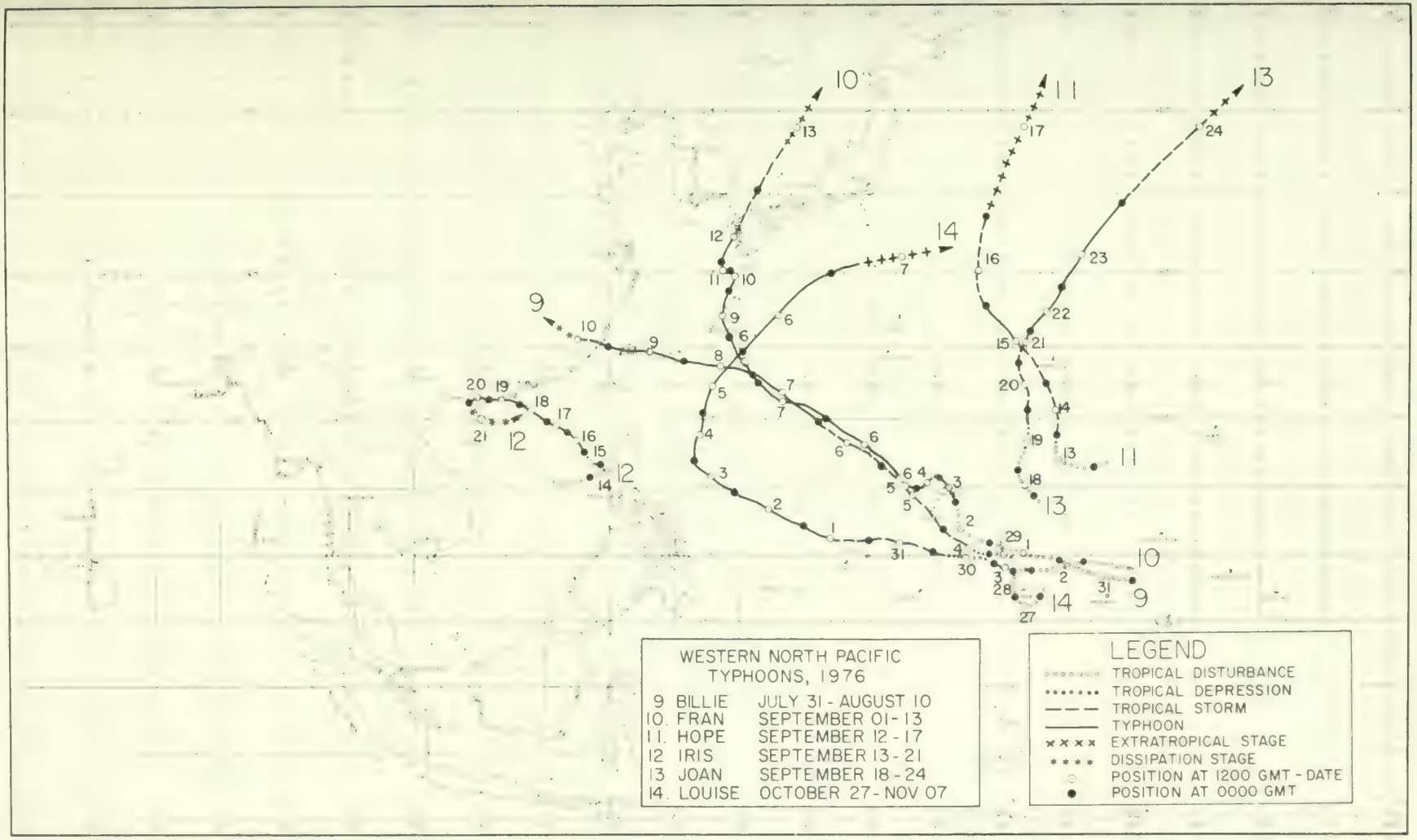

WESTERN NORTH PACIFIC
TYPHOONS, 1976
9 BILLIE JULY 31 - AUGUST 10
10. FRAN SEPTEMBER 01-13
11. HOPE SEPTEMBER 12-17
12 IRIS SEPTEMBER 13-21
13 JOAN SEPTEMBER 18-24
14. LOUISE OCTOBER 27- NOV 07
LEGEND
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON
EXTRATROPICAL STAGE
DISSIPATION STAGE
POSITION AT 1200 GMT - DATE
POSITION AT 0000 GMT

Figure 3

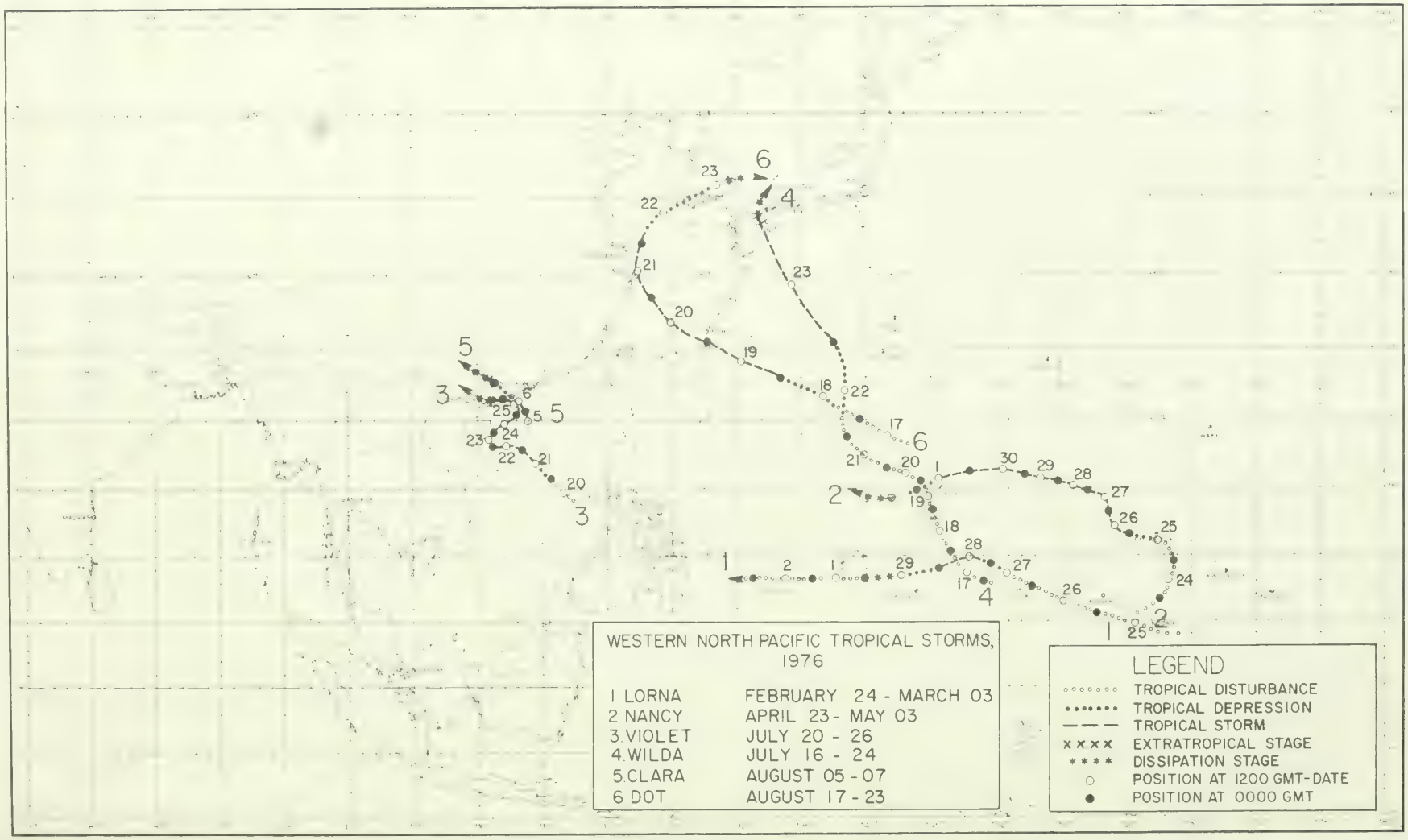

WESTERN NORTH PACIFIC TROPICAL STORMS, 1976
1 LORNA FEBRUARY 24 - MARCH 03
2 NANCY APRIL 23 - MAY 03
3 VIOLET JULY 20 - 26
4 WILDA JULY 16 - 24
5 CLARA AUGUST 05 - 07
6 DOT AUGUST 17 - 23
LEGEND
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
EXTRATROPICAL STAGE
DISSIPATION STAGE
POSITION AT 1200 GMT-DATE
POSITION AT 0000 GMT

Figure 4

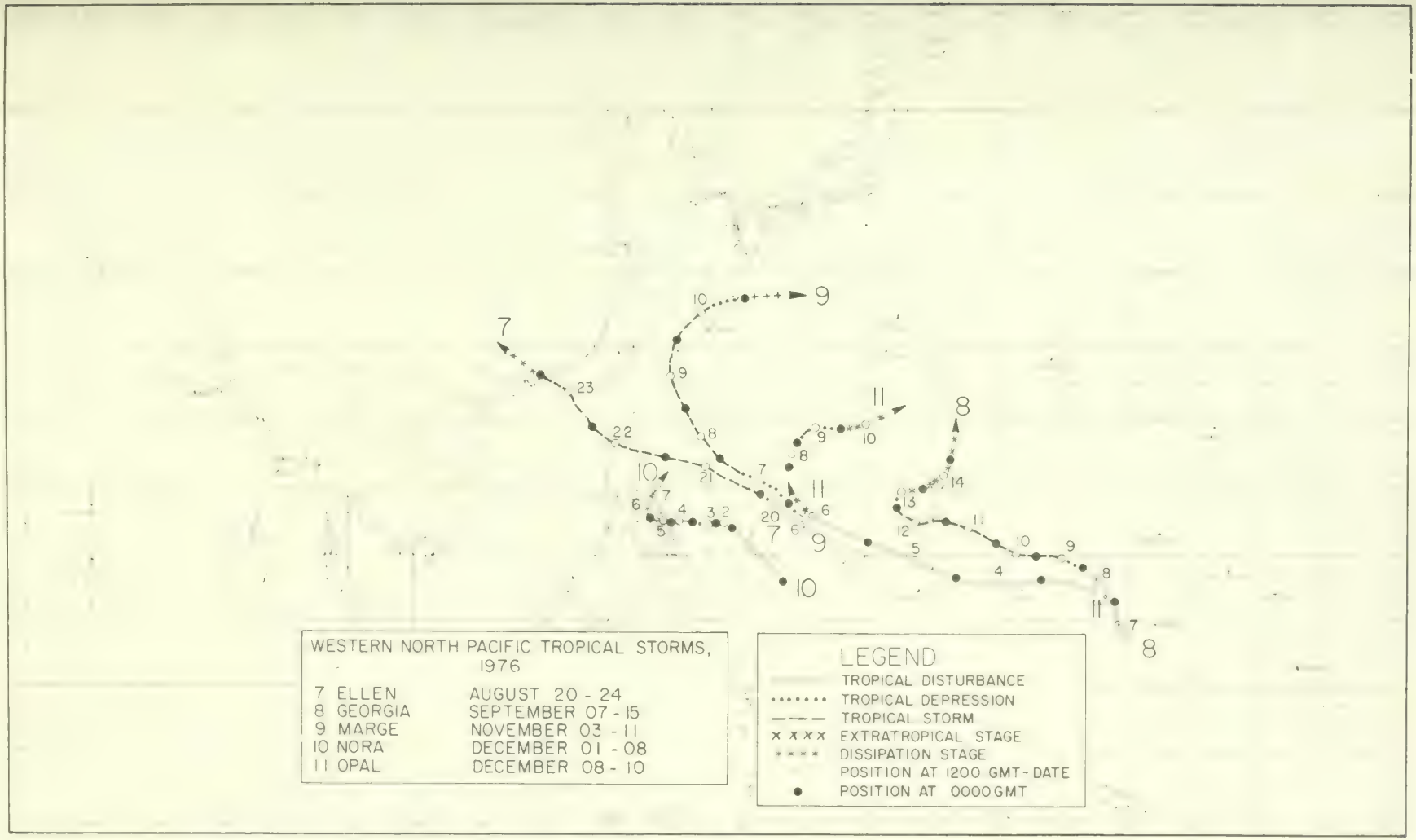

WESTERN NORTH PACIFIC TROPICAL STORMS, 1976
7 ELLEN AUGUST 20 - 24
8 GEORGIA SEPTEMBER 07 - 15
9 MARGE NOVEMBER 03 - 11
10 NORA DECEMBER 01 - 08
11 OPAL DECEMBER 08 - 10
LEGEND
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
EXTRATROPICAL STAGE
DISSIPATION STAGE
POSITION AT 1200 GMT - DATE
POSITION AT 0000 GMT

Figure 5

Table 1.--Western North Pacific tropical cyclones, 1976

Name	Intensity	Period of Warning	Maximum surface wind (kn)	Minimum observed sea level pressure(mb)
Kathy	TY	Jan. 28-Feb. 2	80	969
Lorna	TS	Feb. 27-March 1	35	---
Marie	TY	April 3-14	115	929
Nancy	TS	April 25-May 2	55	984
Olga	TY	May 12-27	100	934
Pamela	STY	May 14-27	130	921
Ruby	TY	June 23-July 4	120	934
Sally	TY	June 24-July 3	115	923
Therese	STY	July 11-20	135	903
Violet	TS	July 21-25	55	---
Wilda	TS	July 22-24	45	992
Anita	TY	July 23-25	65	979
Billie	TY	August 3-10	125	914
Clara	TS	August 5-7	40	---
Dot	TS	August 18-23	50	989
Ellen	TS	August 20-24	45	993
Fran	STY	September 3-13	130	913
Georgia	TS	September 9-15	40	992
Hope	TY	September 14-17	70	981
Iris	TY	September 14-21	75	967
Joan	TY	September 19-24	70	---
Kate	HR	(Central North Pacific hurricane)		
Louise	STY	Oct. 30-Nov. 7	140	895
Marge	TS	November 6-11	60	977
Nora	TS	December 3-8	45	992
Opal	TS	December 9-10	35	996

TY - typhoon; TS - tropical storm; STY - supertyphoon; HR - hurricane

Table 2.--Frequency of tropical storms and typhoons by month and year

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Average (1945-58)	0.4	0.1	0.1	0.5	0.8	1.3	3.0	5.9	4.1	3.3	2.7	1.1
1959	0	1	1	1	0	0	3	6	6	4	2	2
1960	0	0	0	1	1	3	3	10	5	4	1	1
1961	1	1	1	1	3	2	5	4	6	5	1	1
1962	0	1	0	1	2	0	6	7	5	5	3	2
1963	0	0	0	1	1	3	4	3	5	5	0	3
1964	0	0	0	0	2	2	7	9	7	6	6	1
1965	2	2	1	1	2	3	5	6	7	2	2	1
1966	0	0	0	1	2	1	5	5	7	3	2	1
1967	1	0	2	1	1	1	6	5	7	4	3	1
1968	0	0	0	1	1	1	3	8	3	6	4	0
1969	1	0	1	1	0	0	3	4	5	3	2	1
1970	0	1	0	0	0	2	2	6	4	5	4	0
1971	1	0	1	0	4	2	8	4	6	4	2	0
1972	1	0	0	0	1	3	6	0	1	5	2	3
1973	0	0	0	0	0	0	7	5	2	4	3	0
1974	1	0	1	1	1	4	4	5	0	4	4	2
1975	1	0	0	0	0	0	2	4	5	5	3	0
1976	1	1	0	2	2	2	5	3	1	1	1	2
Average (1959-76)	0.6	0.4	0.4	0.9	1.3	1.6	4.7	5.8	4.9	4.2	2.5	1.2

Table 3.--Frequency of typhoons by months and year

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Average (1945-58)	0.4	0.1	0.3	0.4	0.7	1.1	2.0	2.9	3.2	2.4	2.0	0.9
1959	0	0	0	1	0	0	1	5	3	3	2	1
1960	0	0	0	1	0	2	2	8	0	4	1	1
1961	0	0	1	0	2	1	3	3	5	3	1	1
1962	0	0	0	1	2	0	5	7	2	4	3	0
1963	0	0	0	1	1	2	3	5	3	4	0	2
1964	0	0	0	0	2	2	6	3	5	3	4	1
1965	1	0	0	1	2	2	4	5	5	2	1	0
1966	0	0	0	0	2	1	3	6	4	2	0	1
1967	0	0	1	1	0	1	3	4	4	3	3	0
1968	0	0	0	1	1	1	1	5	3	5	4	0
1969	1	0	0	1	0	0	2	5	5	3	1	0
1970	0	1	0	0	0	1	0	4	2	3	1	0
1971	0	0	0	0	1	2	6	4	5	4	1	0
1972	1	0	0	0	1	1	4	1	3	4	2	2
1973	0	0	0	0	0	0	4	2	2	4	0	0
1974	0	0	0	0	1	2	1	2	4	4	2	0
1975	1	0	0	0	0	0	1	3	4	3	2	0
1976	1	0	0	1	2	2	5	0	2	1	0	0
Average (1959-76)	0.3	0.1	0.1	0.7	0.9	1.1	2.9	4.7	3.4	3.2	1.6	0.4

CENTRAL NORTH PACIFIC TROPICAL CYCLONES 1976

Extracted from report submitted by Meteorologist in Charge,
NWS Forecast Office, Honolulu, Hawaii.

Hurricane Kate, the only hurricane to develop in the central Pacific during 1976, posed a threat to the Hawaiian Islands before she veered northwestward about a day's distance from the island of Hawaii. Seas generated by the hurricane caused surf up to 15 feet along the northern and eastern shores of Hawaii, Maui, and Oahu, but no significant damage was reported.

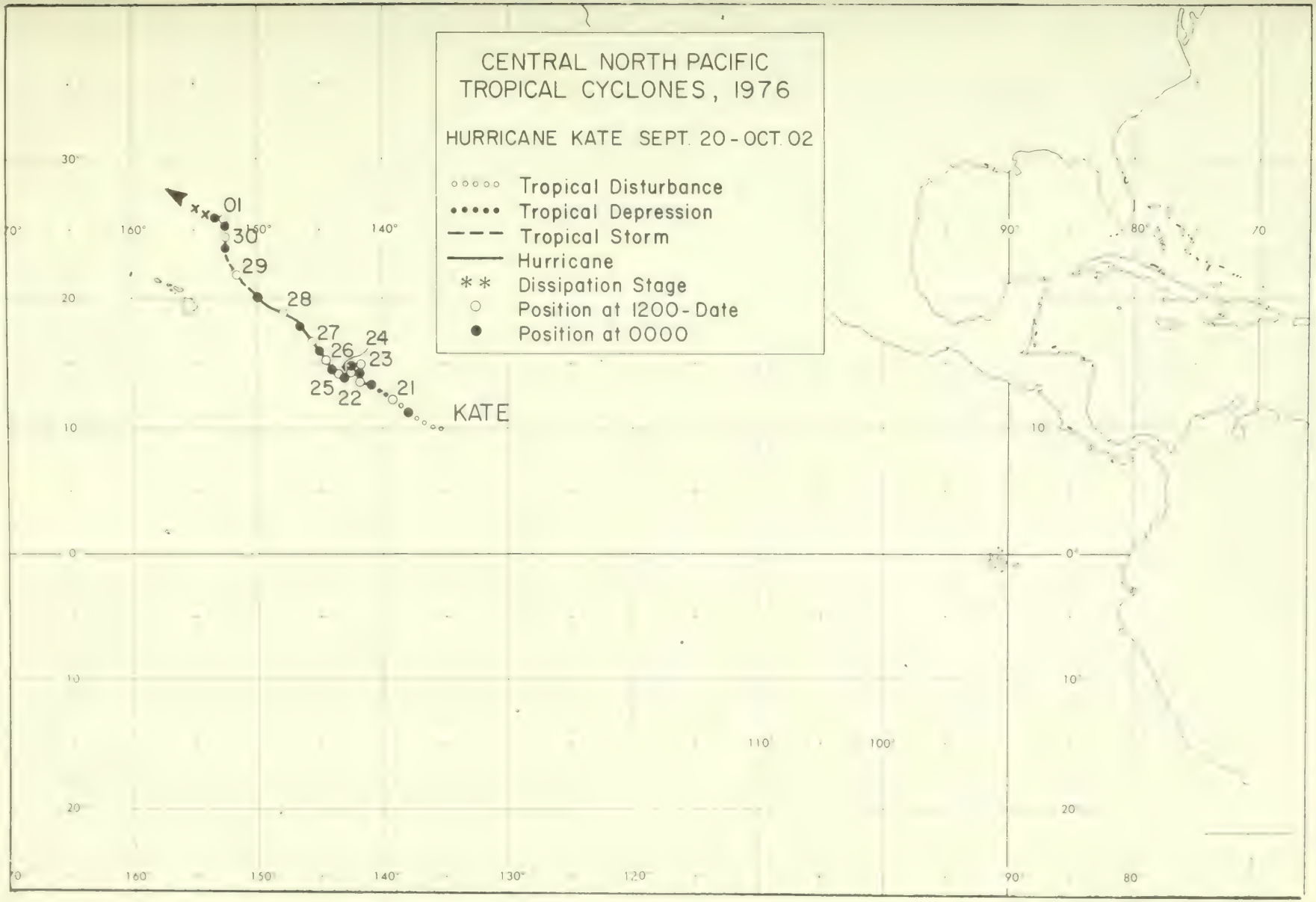
The storm which was later named Kate was spawned on September 20 in the usually absent central North Pacific near-equatorial trough. Other weak vortices were observed in this trough during the life of Kate but did not develop.

The Central Pacific Hurricane Center issued the first bulletin on the morning of the 21st. The GAMZAT TSADSA reported 30-kn southwesterly winds 150 miles southwest of the center of the tropical depression.

The depression's previous northwesterly track stopped on the morning of the 22d, and the storm gradually intensified, becoming hurricane Kate on the morning of the 24th very near its position of 48 hours earlier. Kate then slowly traveled westward for a day before sharply veering north-northwestward.

On the evening of the 25th, the JALAT YOTI was about 120 miles south of Kate with 25-kn westerly winds, indicating that the strong winds in Kate were tightly wound near her center. Kate attained maximum winds of 85 kn on the afternoon of the 26th about 600 miles east-southeast of Hawaii. She did not appear to be an immediate threat to the islands. However, by the next day she had turned northwestward and on the morning of the 28th was positioned only 330 miles due east of Hawaii. At this time it was expected that Kate would pass 150 miles northeast of the island.

During the 28th Kate veered slightly to the right of her expected path and passed harmlessly 240 miles east-northeast of Hilo, Hawaii, while she gradually weakened. Kate finally turned north as a weak tropical storm and ended her career near 27°N, 154°W, as the upper-air westerlies sheared her clouds and circulation.


CENTRAL NORTH PACIFIC
TROPICAL CYCLONES, 1976
HURRICANE KATE SEPT. 20 - OCT. 02
Tropical Disturbance
Tropical Depression
Tropical Storm
Hurricane
** Dissipation Stage
Position at 1200 - Date
Position at 0000
01
30
29
28
27
26
24
23
25
22
21
KATE
30°
20
10
0
10
20
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°

F L O O D S T A G E

YEAR 1976

The following sections, which would normally appear in this issue of the climatological data, have been delayed. They will appear as delayed data in a subsequent issue which normally carries late reports:

Estimated Flood Losses - 1976

Loss of Life and Property in the United States from Floods - 1976

Distribution of Estimated Flood Losses - Charts - 1976

Losses in Individual Severe Floods - 1976

Flood Damage Estimates by States - 1976

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

YEAR 1976

Raymond J. Haley, Office of Hydrology

Failure of Teton Dam in southeast Idaho in June resulted in the most significant flood event during 1976. Although the flooding was confined to a relatively small area involving portions of five counties over a 50-mile stretch, the destruction wrought by the rampaging flood waters was so great that monetary losses, when finally tabulated, may account for as much as 85% of the Nation's total for the entire year. The disastrous flash flooding along the Big Thompson River in north central Colorado in July was a particularly noteworthy event also in which at least 139 persons perished.

Some of the other important flooding during the year include that in the Wabash Basin in Indiana in February; eastern Gulf Drainage in March and again in May; Souris Basin in April; severe flash flooding in the southern Appalachians and the Tulsa, OK, area in May and in New York State in July; flooding caused by the Hurricane Belle rains in the Northeast in August; and the severe flash flooding in southern California and parts of Arizona in September.

Flood losses for the year are expected to exceed $1 billion. There were 176 flood related fatalities.

Following is a brief summary by months of the most significant flooding during the year. A more detailed summary can be found in the monthly issues of this publication.

JANUARY

Flooding was relatively light, although overflow occurred in many of the major drainage systems of the United States. The most significant was that in the North Pacific Slope drainage in the Willamette Basin in Oregon, and along the Oregon coastal streams. Crest stages in those basins approached 6 feet above flood stage in places. Preliminary damages were put at $938,000 in the Willamette Basin and $106,000 for the coastal basins.

FEBRUARY

Flooding occurred in many basins from the Mississippi Valley to the east coast. Ice jams caused significant flooding and record high stages on Buffalo Creek at Gardenville, NY, and in the resort community of Sunset Bay, NY, on Cattaraugus Creek. Damage at Sunset was estimated to be $1.1 million. Ice action was also a factor in much of the other flooding that caused varying degrees of overflow from the Great Lakes Region and upper Ohio Basin to New England. In other areas in the upper Midwest, Ohio Basin, and Great Lakes drainage rainfall and snowmelt combined to cause flooding on many streams. The most significant of this was in the Wabash Basin in Indiana, where crest stages ranged 3 to 10 feet above flood stage. Over 200,000 acres were inundated and damages were estimated to be $4.7 million.

A small dam failed on Newfound Creek in the headwaters of the French Broad River near Asheville, NC, causing the sudden release of 25 to 30 acre-feet of water. The torrent of water destroyed or damaged several homes and farm buildings and other property through a 5-mile stretch downstream. Four members of one family were killed. Property damage was about $200,000.

Several tributaries of the Willamette River in Oregon overflowed and caused about $125,000 property damage. Flash flooding occurred in Hawaii on the Island of Oahu following torrential rain fall which totaled as much as 19.85 inches in a 48-hour period. Property damage was put at $275,000, with more than $200,000 of this in the private sector.

MARCH

Flooding occurred in numerous areas from the Mississippi Valley states to the East Coast as well as in North Dakota and in a few places in Texas and in Oregon.

Major flooding in the East Gulf Drainage caused several million dollars damage. Most crests occurred in late March or early April. Peachtree Creek in the Atlanta, GA, area reached more than 7 feet above flood level, the highest stage since observations were begun 3 years ago. Losses were primarily to the 275 residential and commercial structures which suffered damage, and the total damage was put at over $1 million. Serious overflow in the Alabama and Tombigbee River basins in Alabama and Mississippi inundated 218,000 acres, of which 67,000 acres were farmlands. Losses totaled about $4.9 million and there was one life lost. Monthly rainfall totals ranging 10 to 19 inches in many areas in the Pascagoula and Pearl River basins in Mississippi caused major flooding. Damages were estimated at $2.7 million with more than $2 million of this in the Pearl Basin.

In lower Michigan the worst flooding since 1960 occurred in the lower Grand River basin; and the Rogue River, a tributary of the Grand, reached a record high stage at Rockford, MI. In the Great Lakes drainage in western New York State serious flooding occurred in the Tonawanda Creek basin with $900,000 damage reported along Tonawanda Creek, and over $200,000 damage along Ellicott Creek.

The flooding which began in February in the Wabash River basin in Indiana was prolonged due to a series of storms during the first week of March which produced more than 4 inches of rain in some areas.

Overflow which reached major proportions during April began in the Souris River basin in North Dakota late in March when warm temperatures started the runoff

from a snowpack that contained 1 to nearly 7 inches of water. The largest water content measurements were in the upper basin in Canada, and in the lower basin below Minot, ND.

APRIL

Flooding along the Souris River in North Dakota reached its climax during April. Unusually warm temperatures for the season caused a rapid melting of the basin's snow cover which contained up to 7 inches of water. The runoff which resulted produced new modern record stages at all points along the river. Previous record high stages established during the 1969 and the 1975 floods were exceeded by 0.5 foot to as much as 2.5 feet. Early warnings and forecasts of the flooding, more than 6 weeks in advance of the event, permitted the reinforcement and elevation of the existing levee system. This preflood action prevented losses of $66.5 million, according to U.S. Engineer estimates. Actual damages were put at $2,419,000. Expenditures for flood protection totaled $5.8 million.

Snowmelt runoff during the spring produced generally minor overflow in the Red River of the North Basin of North Dakota and Minnesota. Crest stages had occurred at all points by April 8.

Early spring snowmelt runoff, augmented by 2 inches of rain, caused serious flooding in the Aroostook River Basin in Maine. The town of Masardis was evacuated and the business section of Fort Fairfield was flooded. Damages were estimated at $859,000.

Significant agricultural flooding occurred in parts of the Missouri River Basin in Iowa, Missouri, and Kansas. In northwest Missouri and southwest Iowa, there were 23,000 acres of corn flooded and damage was put at over 0.5 million dollars. Also, over $400,000 damage occurred in north central Missouri in the Grand and Chariton Basins, where about 17,000 acres were flooded. In the Solomon Basin in Kansas damages were estimated at $103,000 with 7,000 acres flooded.

Major flooding occurred in the upper Trinity River Basin in Texas following rainfall which ranged upward to 13.1 inches during a 24-hour period ending on the 20th. Over 50,000 acres were inundated. Losses, mostly agricultural, were estimated at about $2.6 million. Significant flooding occurred also in the Sabine and the San Jacinto Basins in Texas with an estimated $337,000 damages resulting. A flash flood in the Guadalupe River Basin in Texas caused the death of 2 children when the car in which they were passengers attempted to cross a flooded bridge over Coleto Creek.

MAY

Severe flash flooding occurred along small streams in the southern Appalachian Region. At mid-month a storm dropped 4 to 11 inches of rain over the headwaters of the Tennessee River in western North Carolina in 24 hours. One station, Nantahala, NC, measured 8.5 inches in a 10-hour period. The flash flooding which resulted caused an estimated $2.5 million damage. Much the same area was hit by another storm on the 28th-29th with 4 to 10 inches of rain reported. Losses during this flooding were about $6.5 million. This late month storm also caused flash flooding in Georgia in the headwater areas of the Savannah, Oconee, Ocmulgee, and Chattahoochee Rivers with damages totaling about $6.6 million. Also, affected were parts of western South Carolina, primarily the Saluda River Drainage in Oconee and Pickens Counties. Damages here were about $480,000. Two lives were lost in South Carolina and one in Georgia.

During the evening of May 30 slow moving thunderstorms dropped 5 to 11 inches of rain in a 3-hour period over the headwaters of Mingo, Joe, and Fred Creeks in the Tulsa, OK, area. The return frequency of this rainfall was estimated at 300 years. Record high stages occurred on Mingo Creek and near record stages occurred on Joe and Fred Creeks. The return frequency of the flood discharges on these creeks was estimated at 150 years. Residential damage was very heavy. Out of 2,000 living units affected there were 255 houses destroyed and 741 suffered major damage. There were 3 flood-related deaths. Total damage was estimated at $11.9 million. Successful operation of flash flood alarm devices on Mingo Creek was credited with saving as many as 50 lives as well as saving $1.5 to $2 million property damage.

JUNE

In terms of monetary losses, one of the major flood disasters of history occurred in June as a result of the failure of Teton Dam on the Teton River, a tributary of the Snake River in southeast Idaho. The release of 173,000 acre-feet of water in less than two and one-half hours caused destruction over a 50-mile stretch downstream to American Falls Reservoir, where the flood wave was contained. The flooding affected the counties of Fremont, Madison, Bonneville, Jefferson, and Bingham. A half dozen communities suffered severe damage, including Rexburg, where 60% of the homes were destroyed. There were 11 flood-related deaths. About 10,000 persons were evacuated from 2,900 dwellings. Damaged or destroyed were 450 farms, 700 houses, and 200 commercial establishments. More than 100,000 acres of farmland were inundated and the potato crop on 40,000 acres was lost for the year. About 12,000 head of livestock were lost. Preliminary estimates placed total flood losses at $1 billion.

Severe flash flooding occurred in several widely separated parts of the country. The southern half of Houston, TX, was the scene of disastrous flooding on the 15th. Rainfall totals ranged upward to 13 inches, most of which occurred between 3 to 6 PM. There was widespread damage to hospitals, houses, commercial and industrial property, and automobiles. There were 7 deaths. Losses were estimated at about $30 million. Steuben and Chemung Counties in the upper Susquehanna River Basin in New York were hit by heavy rain on the 19th and 20th. The resultant flash flooding caused heavy damage, mostly washed out roads and bridges, totaling about $11 million.

GENERAL SUMMARY OF NATIONAL FLOOD EVENTS

The Black Hills region of South Dakota (headwaters area of the Cheyenne River) received torrential rains between late on the 13th and early on the 15th. One station reported 13.89 inches during this period. Most of the damage caused by the flooding was to public roads and bridges and railroad rails and bridges and was estimated at $5.6 million.

Serious flash flooding occurred also in the western section of the Chicago metropolitan area. Up to 8 inches of rain fell in 24 hours. About 1,200 families were evacuated and 450 houses received major damage. Total losses were about $1.8 million, most of which was residential. Up to 8 inches of rain fell in 3 hours on the evening of the 23d in the Oakfield area of Genesee County in New York, causing serious flash flooding. Six inches of rain in 6 hours on the 20th caused significant flash flooding in Rensselaer County, New York, and in nearby Berkshire County in Massachusetts.

JULY

One of the worst flood disasters in the nation's history occurred on the last day of July along the Big Thompson River in north central Colorado. A series of thunderstorms, which developed just south of the basin and moved northward along the same track across the basin, dumped prodigious amounts of rain between 6 PM and midnight. It was estimated that 10 inches fell in about a 90-minute period on the main stem of the river and up to 8 inches along the North Fork. As a wall of water about 19 feet high moved downstream it destroyed 323 houses and 96 mobile homes and caused major damage to 79 houses and 15 mobile homes. The Loveland municipal power plant, a brick building, was moved off its foundation. The town of Drake, population 100, was completely destroyed. There were at least 139 persons killed. About 800 persons were evacuated from the region, mostly by helicopter. Preliminary damage estimates ran as high as $30 million.

Major flash flooding occurred on the 11th in the upper Susquehanna and Mohawk Basins and Lake Champlain Drainage of New York. A drowning occurred near Utica in Wood Creek. Losses were estimated at $14 million. Of this amount $6 million agricultural and $2 million road and highway damage occurred in Courtland County.

Two persons were drowned in a drainage ditch in Overland Park, KS a suburb of Kansas City, MO, on the 15th. Up to 4 inches of rain falling in less than 2 hours caused severe urban flooding.

Record and near-record high stages occurred in the middle Arkansas Basin during a 6-day period during the first week of July. The greatest official 2-day storm total was 15.13 inches at Cherryvale, KS, although there were some isolated reports of as much as 18 inches. Crest stages on the Verdigris River ranged up to 12.5 feet over flood stage; to almost 13 feet over on Spring Creek; and to near 6 feet over on the Neosho River. Severe flash flooding occurred on Elk Creek and its tributaries. One fatality occurred on Otter Creek in the Verdigris Basin. Losses totalled almost $20 million.

Flash flooding at McCarran Airport in Las Vegas, NV, caused an estimated $200,000 damages.

AUGUST

Rainfall associated with Hurricane Belle, which came ashore on Long Island on the 9th and moved northeastward through New England, caused widespread flash flooding and urban flooding. Three-day storm totals ranged from 3 to nearly 8 inches. Flash flooding occurred throughout most of Vermont, and the southern part of the State was declared a disaster area. Two persons were drowned when a foot bridge over Huntington River was swept away. The water works at Hoosic Falls was flooded. A number of people were evacuated at Wallingford on Otter Creek and severe crop damage occurred along lower Otter Creek. Heavy damage was reported in Manchester, VT, on the Batten Kill River.

Aroostook County in Maine reported $2.5 million damage, most of which was to crops. Damage in Connecticut was estimated at $7.1 million, and on Long Island at $9 million, but much of this was caused by wind and coastal flooding. Several thousand people were evacuated in Connecticut, Rhode Island, and in the Cape Cod area of Massachusetts. The U.S. Geological Survey reported record crest stages on several small streams in New England.

Severe flash flooding occurred in parts of eastern and central Washington early in the month. Damage to mobile homes, trailers, crops, and farm buildings and equipment in Asotin County was estimated at $1.5 million. At least $1 million damage occurred in other areas. There was one fatality near Clarkson, WA.

SEPTEMBER

Severe flash flooding hit parts of Arizona and southern California. The most serious and extensive resulted from the heavy rainfall associated with tropical storm Kathleen. Storm totals of 9 to 14.5 inches were reported in the mountainous areas, while those at lower elevations were in the 2 to 4-inch range which in some cases exceeded normal annual amounts. Normally dry washes became raging torrents causing hundreds of road washouts, 900 in Imperial County, California. The community of Ocotillo was hit by a wall of water 30 feet high that rushed down Meyers Canyon destroying the bridge on Interstate Highway 8 and creating a gap 700 feet wide and 400 feet deep. Ninety % of the homes in the town were destroyed or severely damaged. Three persons were killed. Severe damage occurred also in Holtville and El Centro, CA. Flood waters moving down the Carrigo Gorge northeast of Jacumba destroyed 3 bridges and several miles of railroad track. Losses in Imperial County were estimated at $7.8 million and in Riverdale County at $35 million. Flooding was less severe in other parts of southern California.

The same storm which produced the severe flooding in California also brought severe flash flooding to

Mohave County in Arizona. Bullhead City was hardest hit and completely isolated. Damage to private property was put at $2.5 million and to streets and roads at $500,000. This same area was hit by another storm on the 24th with similar results and additional damage of $2-3 million occurred. The following day flash flooding hit Phoenix and Tucson, AZ. It was most severe in Tucson where 100 roads and streets thoughout the city were flooding and a dozen cars were swept into washes. One person was drowned.

Several areas in New Mexico were struck by flash flooding. The most serious was at Truth or Consequences where 2 persons were killed and 8 injured when 4 cars drove into a washout.

OCTOBER

Severe flash flooding occurred along Carroll Creek in the Frederick, MD, area following a 5-inch rain on the 9th-10th. Major damage to businesses and residences, and to public property totaled an estimated $4.9 million. There were 367 persons evacuated from an 8-block area in Frederick.

In the Saluda River Basin in South Carolina the Laurens Plaza shopping center was flooded by Reedy Fork Creek for the second time in 4 years with losses estimated at $2 million. The highest stage since 1929 occurred at Blair, SC, when the Broad River crested 23 feet over flood stage at that point. Losses along the Broad plus losses from flash flooding elsewhere in the basin totaled $712,000. Flooding and flash flooding elsewhere in the Piedmont region of South Carolina during October totaled more than $600,000 and included losses to crops and livestock.

A storm during the period of the 6th-9th left up to 6 inches of rain in the headwater areas of the Greenbrier River in West Virginia. There were 600 persons evacuated in and around Marlinton. Total losses for the basin were estimated at more than $3 million.

NOVEMBER

There was no flooding of consequence during November.

DECEMBER

There was no major flooding during December. An ice jam on Buffalo Creek caused 5-foot overflow and the second highest stage of record at Gardenville, NY. Only minor damage resulted, however, due to the localized nature of the flooding. An ice jam at Hardwick, VT, in the LaMoille River Basin, resulted in the flooding of several homes and a highway.

Lowland flooding occurred on several rivers in Texas and in the South Atlantic Drainage. Overflow was in progress throughout most of the month on some of these, particularly those in southeast Texas.

LATE REPORTS

GENERAL SUMMARY OF FLOOD LOSSES FOR 1974

Raymond J. Haley
Office of Hydrology, National Weather Service

Monetary losses in the United States due to flooding during 1974 were estimated at $576,203,000. This is about 75 percent less than the 1973 figure which was $2,237,396,000, adjusted to the 1974 price index. Also, the 1974 losses were about 36 percent lower than the 23-year (1951-1973) average national flood loss figure of $901,473,000 (adjusted).

There were two flood events during 1974 in which losses exceeded $100 million. The first occurred during January in the Columbia Basin and in the coastal basins of Oregon and northern California where damages were estimated at $142,641,000. The second event occurred in May-June in tributary basins of the Mississippi River in Missouri, Iowa, and Illinois where losses were put at $129,510,000.

One hundred twenty-one persons lost their lives in flood related incidents during the year. This is 27 fewer than in 1973 but is still 27 more than the national average (94) for the 49-year period, 1925 to 1973. The deaths during 1974 occurred in many scattered localities across the country. The greatest number to perish in a single event was 13 and these lives were lost in November during a period of flash flooding on small streams in Travis, Hay, Comal, and Guadalupe counties in Texas.

LATE REPORTS

ANNUAL FLOOD LOSSES FOR UNITED STATES

Annual Flood Losses and Savings for years 1933 to 1947, inclusive, have been published in the Monthly Weather Review as follows:

Year	Issue	Pages
1933	Vol. 62, No. 1, Jan. 1934	25-27
1934	Vol. 62, No. 12, Dec. 1934	465-467
1935	Vol. 63, No. 12, Dec. 1935	362-365
1936	Vol. 65, No. 1, Jan. 1937	28-31
1937	Vol. 66, No. 12, Dec. 1938	426-430
1938	Vol. 68, No. 9, Sept. 1940	262-263
1939	Vol. 68, No. 11, Nov. 1940	329-330
1940	Vol. 69, No. 7, July 1941	217-218
1941	Vol. 71, No. 11, Nov. 1943	185-186
1942 & 1943	Vol. 73, No. 8, Aug. 1945	137-139
1944 & 1945	Vol. 76, No. 6, June 1948	113-116
1946	Vol. 76, No. 9, Sept. 1948	208-210
1947	Vol. 77, No. 9, Sept. 1949	262-265

Annual flood loss data for the year 1948 and for subsequent years are published in Climatological Data, National Summary as follows:

Year	Issue	Year	Issue
1948	August 1950	1962	Annual 1963
1949	Annual 1950	1963	Annual 1964
1950 & 1951	Annual 1951	1964	Annual 1965
1952	Annual 1952	1965	Annual 1966
1953	Annual 1953	1966	Annual 1967
1954	Annual 1955	1967	Annual 1968
1955	Annual 1956	1968	Annual 1969
1956	Annual 1957	1969	Annual 1970
1957	Annual 1958	1970	Annual 1971
1958	Annual 1959	1971	Annual 1972
1959	Annual 1960	1972 & 1973	Annual 1975
1960	Annual 1961	1974	Annual 1976
1961	Annual 1962		

Prior to 1933 Flood Losses and Savings were published monthly, as a rule, in the Monthly Weather Review.

ESTIMATED FLOOD LOSSES FOR 1974 LATE REPORTS

In Thousands of Dollars

River and Drainage	Urban Property					Rural Property					Other Property					
	Residential		Commercial		Public	Crops		Livestock	Other		RR's Highways, etc.	Bridges Public Utilities	Miscellaneous *	Unallocated	Total Loss **	Live Loss
	Fixed	Movable	Fixed	Movable		Growing	Stored		Fixed	Movable						
HUDSON BAY DRAINAGE																
Red River of North Basin (including the Souris Basin in N. Dakota)	A 996	.....	A 359	.....	151	10,084	.....	.....	A 2,875	.....	1,740	.....	782	.....	16,987	...
Total	996	.....	359	.....	151	10,084	.....	.....	2,875	.....	1,740	.....	782	.....	16,987	...
ST. LAWRENCE DRAINAGE																
Lakes Michigan and Huron																
Grand River (Mich.)	A 5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	...
Tittabawassee River (Mich.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	95	.....	.....	.....	95	...
Rivers in Detroit and Wayne County Counties, Mich.	.....	.....	.....	.....	85	.....	.....	.....	.....	.....	55	.....	.....	.....	149	...
Total	5	.....	.....	.....	85	.....	.....	.....	.....	.....	150	.....	.....	.....	249	...
ATLANTIC SLOPE DRAINAGE																
St. John River (Maine)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,000	3,000	...
Branch Flood on Neshaminy Creek near Willow Grove, Pa.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Christina River (Delaware)	A 5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	...
Flood Flood at Bound Va.	.....	.....	A 100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100	...
Branch Flood at Greensboro, N.C.	A 1,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,000	...
Pee Dee Basin in Carolina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	74	74	...
Congaree River (S.C.)	A 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	30	...
Edisto River (S.C.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	...
Total	1,030	.....	100	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	3,076	4,241	1
GULF OF MEXICO DRAINAGE																
Rivers in Pinellas County and Central Florida Central Streams	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,400	1,200	.....	15,260	B 24,860	...
Withlacoochee River (Fla.)	.....	.....	.....	.....	.....	71	.....	.....	.....	.....	49	.....	.....	.....	120	...
San Jacinto River (Tex.)	A 5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	41	...
Lamar and Dickinson Bayous (Tex.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	405	405	...
Atchafalaya River (La.)	.....	.....	.....	.....	.....	31	.....	.....	.....	.....	3	.....	.....	.....	34	...
Tributaries, Bayou and Tributaries (Mississippi)	A 85	.....	.....	.....	.....	2,546	.....	.....	.....	.....	262	.....	.....	.....	2,979	...
Tchefuncte River (Miss.)	C 6	.....	.....	.....	.....	91	.....	.....	.....	.....	16	.....	.....	.....	113	...
Leaf River (Miss.)	C 242	.....	.....	.....	.....	120	.....	.....	.....	.....	86	.....	.....	.....	448	...
Pearl River (Miss.)	C 10,153	.....	.....	.....	.....	1,102	.....	.....	.....	.....	1,251	.....	350	.....	12,858	9
Pearl River (Miss.)	C 1,917	.....	.....	.....	.....	2,646	.....	.....	.....	.....	1,344	.....	.....	.....	6,006	...
Total	12,630	.....	.....	.....	.....	B 6,907	.....	.....	.....	.....	13,032	1,200	350	15,665	46,874	9
MISSISSIPPI SYSTEM																
Upper Mississippi Basin																
Pecatonica River (Wisc.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	250	250	...
Sugar River (Wisc.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	140	140	...
Rock River (Wisc.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,788	6,788	...
Tributaries in Wisconsin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	90	90	...
Tributaries in Illinois, Central Illinois Minooka to Allentown	.....	.....	.....	.....	.....	D 2,500	.....	.....	.....	.....	.....	.....	.....	692	3,192	...
Tributaries in Illinois, Lower Illinois	.....	.....	.....	.....	.....	D 270	.....	.....	.....	.....	.....	.....	.....	30	300	...
Tributaries in Illinois, Central Illinois Illinois-Green Rivers	.....	.....	.....	.....	.....	D 4,250	.....	.....	.....	.....	1,300	.....	.....	25,270	30,820	1
Mississippi River and Tributaries, Central Illinois Tributaries	C 3,000	.....	.....	.....	.....	D 630	.....	.....	.....	.....	.....	.....	.....	1,000	4,870	...
Tributaries in Illinois	46	.....	.....	.....	.....	D 3,554	.....	.....	.....	.....	.....	.....	.....	28,000	31,880	...
Total	3,046	.....	.....	.....	.....	12,184	.....	.....	.....	.....	1,300	.....	.....	82,270	78,790	1

See reference notes A1 and B1 table.

ESTIMATED FLOOD LOSSES FOR 1974 LATE REPORTS

In Thousands of Dollars

River and Station	Urban Property: Residential: Fixed	Urban Property: Residential: Movable	Urban Property: Commercial: Fixed	Urban Property: Commercial: Movable	Public	Rural Property: Crops: Growing	Rural Property: Crops: Stored	Rural Property: Livestock	Other Property: Fixed	Other Property: Movable	Other Property: RR's, bridges, Highways, etc.	Other Property: Public Utilities	Miscellaneous Unclassified *	Total Loss **	Lives Lost
Missouri Basin															
Big Hole (Jefferson and Gallatin Rivers (Mont.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50	50	...
Milk Basin (Mont.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	210	.....	.....	210	2
Upper Yellowstone Basin (Mont.)	5	.....	72	.....	48	470	10	16	30	16	456	1	755	1,885	...
Flash Flood near Ft. Yates, N.Dak.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	5	1
Oak Creek (Curson County, S.Dak.	C 168	.....	.....	.....	.....	D 100	.....	.....	.....	.....	.....	.....	.....	268	2
102 River (Mo.)	.....	.....	.....	.....	36	1,362	.....	.....	31	10	220	.....	.....	1,659	...
Little Platte River (Mo.)	2 101	2,014	1,820	1 888	2 730	1,750	.....	10	50	50	50	783	63	119	13,378	2
Platte River (Mo.)	1 260	1 141	1,035	3 409	3 885	3,948	700	200	11	200	3 248	26	79	.....	19,140	...
Stocky Hill Basin (Kans.)	.....	.....	.....	.....	2	8	5	.....	60	.....	.....	.....	.....	.....	75	...
Big Blue Basin (Kans.)	.....	.....	.....	.....	.....	17	.....	.....	.....	.....	5	.....	.....	.....	52	...
Kansas River and minor tributaries (Kans.)	.....	.....	.....	.....	.....	60	.....	.....	.....	.....	.....	.....	.....	.....	60	...
Blue River (Mo.)	.....	.....	1	.....	.....	10	.....	.....	.....	2	.....	.....	3	.....	46	1
Little Blue River (Mo.)	.....	.....	.....	.....	.....	140	.....	.....	.....	2	.....	.....	.....	.....	142	3
Crooked River (Mo.)	.....	.....	.....	.....	.....	1,000	.....	.....	10	3	300	5	25	.....	1,343	...
Wakenda River (Mo.)	25	1	10	15	50	1,000	.....	3	75	10	40	.....	25	.....	1,234	...
Grand River (Mo.)	.....	.....	.....	.....	.....	340	.....	.....	3	.....	.....	.....	.....	.....	343	...
Chariton River (Mo.)	.....	.....	.....	.....	.....	1,360	.....	1	56	.....	55	.....	.....	.....	1,672	...
Blackwater River (Mo.)	.....	.....	.....	.....	.....	1,818	.....	.....	12	.....	50	.....	.....	.....	1,880	...
Fishing River (Mo.)	800	650	1,120	1,120	1 795	1,600	.....	10	40	50	135	26	69	.....	7 415	...
Marais des Cygnes River (Kans.)	.....	.....	.....	.....	.....	132	.....	.....	.....	.....	2	.....	.....	.....	134	...
Flash Floods in Southwest Missouri	.....	.....	.....	.....	.....	50	.....	.....	.....	.....	.....	.....	.....	.....	50	2
Missouri River (Nebr.-Kans.-Mo.)	A 11	.....	2	5	80	3,296	.....	100	20	5	272	30	34	.....	3,885	...
Total	4,400	3 806	4,060	6,437	8,604	18,747	715	340	398	348	5,776	151	354	810	54,946	13
Ohio Basin															
Flash Flood at Mingo, W.Va.	C 30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30	...
Kanawha River (W.Va.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	815	815	...
Guyandot River (W.Va.)	C 6,800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 100	7,900	2
Twelve Pole Creek (W.Va.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	160	160	...
Tug Fork (W.Va.)	C 700	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	300	1,000	...
Levisa Fork (W.Va.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	450	450	...
Flash Flooding in Warren County, Ohio	A 1,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	500	1,500	...
Flash Flooding in Kentucky River Basin (Ky.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	950	950	1
Green Basin (Ky.)	.....	.....	.....	.....	.....	187	.....	.....	.....	.....	.....	.....	.....	576	763	...
Wabash River and tributaries (Ind.-Ill.)	.....	.....	.....	.....	100	10,209	.....	.....	.....	.....	260	.....	.....	13,642	24,211	...
Cumberland River (Ky.-Tenn.)	200	25	95	35	300	80	11	.....	35	25	30	10	169	.....	1,015	1
Flash Flooding in Tennessee Basin in Tennessee	.....	.....	50	.....	25	.....	.....	.....	.....	.....	.....	.....	.....	500	575	...
Ohio River (Ind.-Ky.)	.....	.....	.....	.....	.....	2 355	.....	.....	.....	.....	.....	.....	.....	3,108	5,463	...
Total	8 750	25	145	35	425	12,831	11	.....	35	25	290	10	169	22,101	44,852	4
Arkansas White Basin															
Verdigris and Neosho Rivers and tributaries (Okla.-Kans.)	E 3,784	.....	.....	.....	2 879	732	.....	75	160	1	108	.....	300	.....	10,009	5
Flash Flooding in June in Tulsa and Lincoln Counties, Okla.	1,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	850	.....	.....	7,650	10,000	6
Flash Flooding and floods in November in Oklahoma, Logan Canadian, Pawnee, Tulsa, Osage Creek and Washington Counties, Okla.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,000	10,000	...
Flash Flood in Illinois Basin (Okla.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	500	500	1
Flash Flood near Alloy Springs, Mo.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Arkansas, Ninnescah, Little Arkansas Rivers and Sand Creek (Kans.)	33	.....	.....	.....	130	24	4	40	20	1	.....	.....	1	.....	252	1
Total	7 317	.....	.....	.....	3,009	756	4	115	180	1	958	.....	301	18 150	30,791	15

See reference notes at end of table.

ESTIMATED FLOOD LOSSES FOR 1974 (LATE REPORT)

(In Thousands of Dollars)

River and Location	Urban				Rural				Other		Highways			Railroads		Utilities	
	Homes	Business	Farms	Business	Public	Crops	Livestock	Losses	Homes	Business							
Red Basin																	
Little and Greater Rivers (Ardis)																	
Saltpeter River (Clyde)																	
Black Bayou (Tyler)																	
Small tributaries in central and southeast portions																	
Ouachita River (Monroe)																	
Bayou Mon (Mer Rouge)																	
Red River (Texas)																	
Total																	
Lower Mississippi-Yazoo Basin																	
St. Francis River (Lake)																	
Tributaries of Bayou Des Arc																	
Cache River (Brasfield)																	
Mississippi River and tributaries (Helena)																	
Big Creek (Marion)																	
Grassy Lake (Arkansas)																	
Total																	
Ark-White-Red Basins																	
Arkansas River (Ozark)																	
Arkansas River (Pine Bluff)																	
Bayou Meto (Jacksonville)																	
Arkansas River (Dardanelle)																	
Petit Jean River (Danville)																	
Fourche La Fave River (Ola)																	
Illinois River (Tahlequah)																	
Poteau River (Poteau)																	
Arkansas River (Muskogee)																	
Verdigris River (Claremore)																	
Caney River (Bartlesville)																	
Total																	
Upper Mississippi Basin																	
Mississippi River (Quincy)																	
Mississippi River (Keokuk)																	
Des Moines River (Des Moines)																	
Total																	
Missouri Basin																	
Missouri River (Kansas City)																	
Missouri River (Omaha)																	
Platte River (Columbus)																	
Total																	
Ohio Basin																	
Ohio River (Louisville)																	
Great Lakes Basin																	
Lake Michigan (Chicago)																	
Lake Erie (Cleveland)																	
Lake Erie (Buffalo)																	
Total																	
Pacific Coast Basin																	
Sacramento River (Sacramento)																	
Sacramento River (Red Bluff)																	
Feather River (Oroville)																	
Total																	
Colorado River Basin																	
Colorado River (Yuma)																	
Colorado River (Needles)																	
Total																	
Great Basin																	
Humboldt River (Winnemucca)																	
Truckee River (Reno)																	
Total																	
Columbia River Basin																	
Willamette River (Portland)																	
Columbia River (Vancouver)																	
Columbia River (The Dalles)																	
Total																	
Alaska and Hawaiian Islands																	
Kuskokwim River (Bethel)																	
Yukon River (Fairbanks)																	
Tanana River (Nenana)																	
Total																	
Miscellaneous Areas																	
Total																	
Grand Total																	

* Includes losses to streets, roads, bridges, and other public facilities.

** Includes losses to railroad and utility facilities.

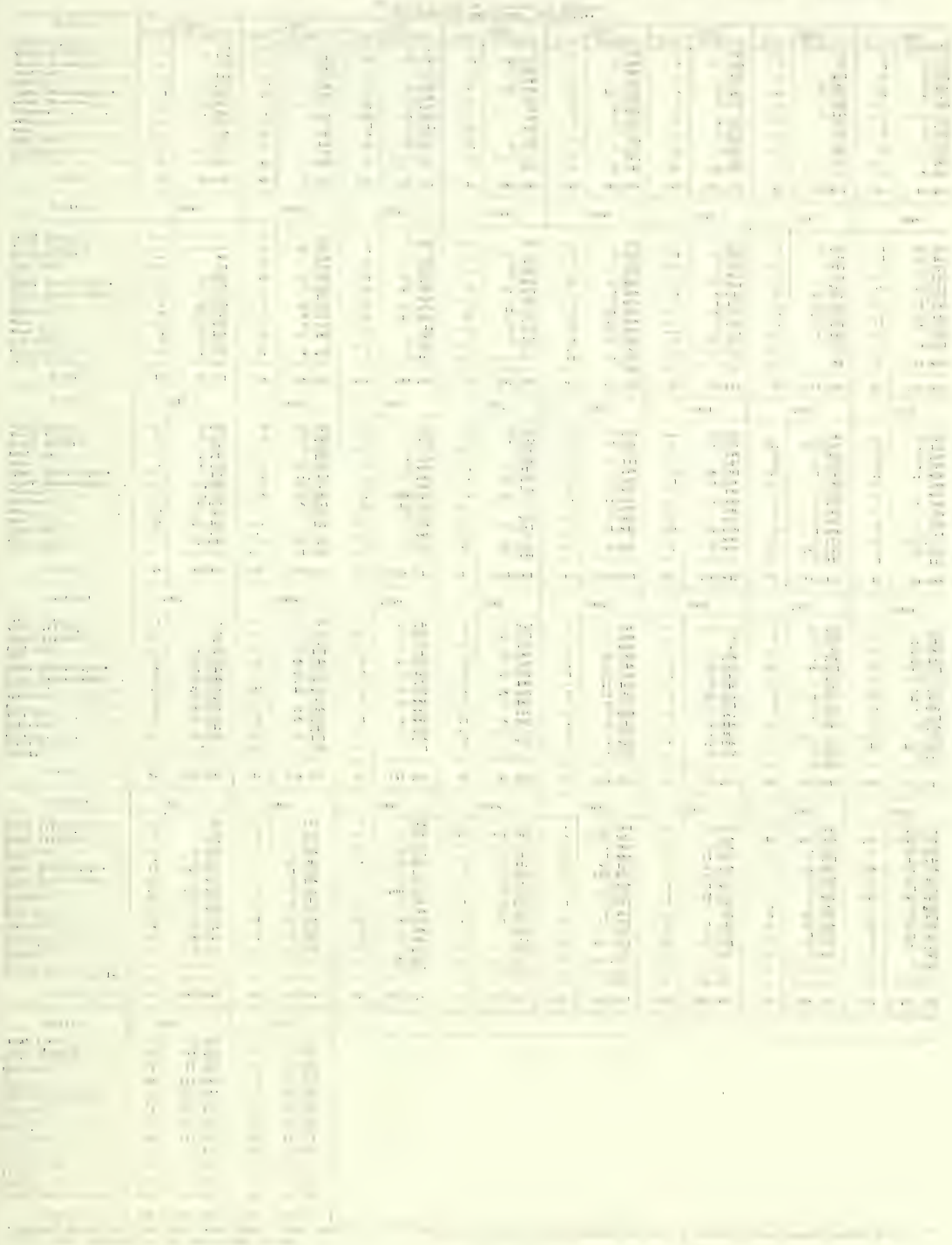
ESTIMATED FLOOD LOSSES FOR 1974 LATE REPORTS

In Thousands of Dollars

River and drainage	Urban Property				Rural Property						Other Property					
	Residential		Commercial		Public	Crops		Livestock		Other		RR's, bridges, Public Highways etc., utilities	Miscellaneous *	Unclassified	Total Loss **	Lives Lost
	Fixed	Movable	Fixed	Movable		Growing	Stored			Fixed	Movable					
Columbia Basin																
Kootenai, Pend Oreille and Spokane Rivers and tributaries (Idaho-Mont.-Wash.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34,622	34,622	...
Yakima River and tributaries (Wash.)	.....	.....	A 27	.....	43	D 122	.....	.....	42	38	49	17	50	13,000	13,388	...
Snake River and tributaries (Idaho, Washington, Oregon, Wyoming)	A 284	.....	A 583	.....	85	D 715	.....	.....	.....	.....	5,451	277	896	261	8,552	...
Willamette River and tributaries (Oregon)	A 6,200	.....	A 29,561	.....	.....	D 6,168	.....	.....	.....	.....	.....	.....	.....	5,317	47,246	...
Columbia River and minor tributaries	A 385	.....	353	.....	.....	D 1,162	.....	.....	.....	.....	.....	.....	.....	1,079	2,979	...
Total	6,869	.....	30,524	.....	128	8,167	.....	.....	42	38	5,500	294	946	54,279	106,787	...
HAWAII																
Island of Oahu	647	320	A 1,875	.....	269	D 345	.....	.....	.....	.....	229	77	.....	.....	3,762	4
Island of Kauai	E 86	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	96	1
Island of Maui	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	.....	11	..
Total	733	320	1,875	.....	279	345	.....	.....	.....	.....	229	77	11	.....	3,869	5
PUERTO RICO																
Fajardo, Yauco, Guyanilla, Canas and Portugese Rivers and flash flooding in other basins	.....	.....	.....	.....	.....	D 6,000	.....	.....	.....	.....	4,000	.....	.....	.....	10,000	10
Total	.....	.....	.....	.....	.....	D 6,000	.....	.....	.....	.....	4,000	.....	.....	.....	10,000	10
GRAND TOTAL	49,288	4,383	38,625	6,472	19,784	152,087	1,450	1,853	6,830	595	36,066	1,923	3,037	253,810	576,203	121

* Estimated losses under this heading usually refer to losses and wages due to suspension of business and costs of emergency protection, evacuation, disaster flood and relief. ** Most figures are based on flood damage surveys conducted by the National Weather Service and the estimates contained in reports of Corps of Engineers, U.S. Army. A. Includes movable property. B. Includes all of these - not possible to separate. C. Includes all urban property. D. Includes all agricultural losses. E. Includes all residential and commercial property. F. Includes all local property, roads, bridges, and utilities.

LOSS OF LIFE AND PROPERTY IN THE UNITED STATES FROM FLOODS

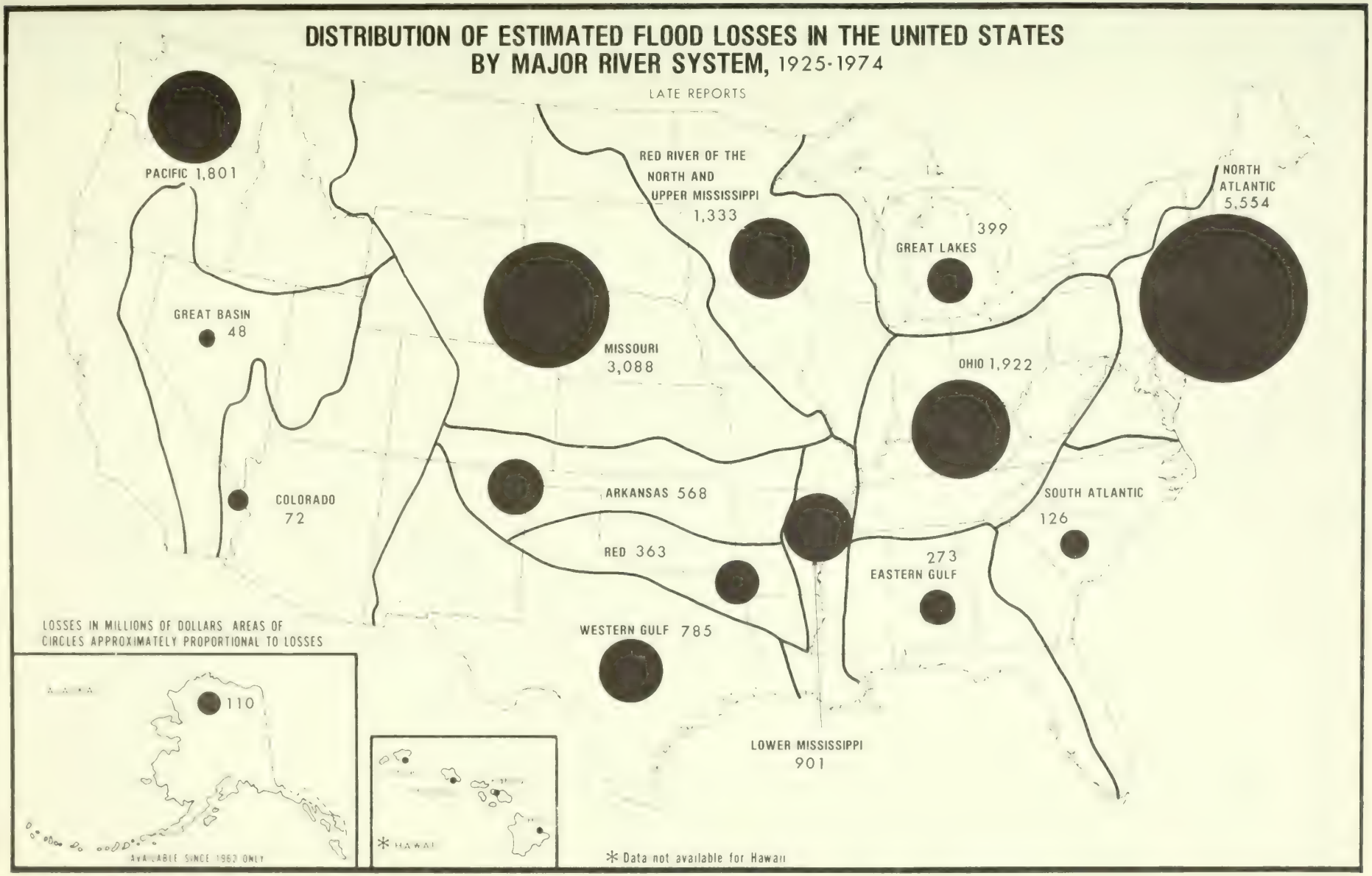


LOSS OF LIFE AND PROPERTY IN THE UNITED STATES FROM FLOODS

PROPERTY LOSSES IN THOUSANDS OF DOLLARS
BY MONTHS AND YEARS, 1925–1971

Year	January		February		March		April		May		June		July		August		September		October		November		December		Total	
	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life
1925	2,041	2	141	3	41	1		0	0	0	2,980	14	110	0	27	0	1,475	11	480	0	85	0		0	5,925	31
1926	19	0	100	0	77	0	20	0	0	0	0	1	0	0	7	0	7,720	6	12,600	3	0	0	1,854	2	22,438	12
1927	2,929	8	2,886	0	167	0	28,207	0	7,805	0	2,125	0	141	0	2,460	0	0	0	1,027	0	15,093	88	157	0	64,799	12
1928	1	0	0	0	288	0	1,108	0	195	0	12,280	1	1,000	0	9,271	3	1,017	1	0	0	1,000	0	16	0	24,811	1
1929	122	0	2,964	0	21,947	47	1,357	0	1,698	0	40,208	3	1,100	32	130	0	92	0	9,379	0	0	0	70	0	68,998	84
1930	7,110	0	7	0	110	0	0	0	7,021	31	1,011	0	211	0	231	0	0	0	29	0	0	0		0	15,830	31
1931	0	0	50	0	72	0	0	0	5	0	1	0	1,250	0	201	0	0	0	1	0	211	0	22	0	2,898	0
1932	1,201	0	0	0	165	0	75	0	1,102	0	2,215	0	1,824	0	765	0	2,166	11	3,650	0	0	0	50	0	10,200	11
1933	508	0	84	0	7,608	1	2,744	1	10,485	4	2,650	4	1,317	0	0,650	4	180	0	40	0	10,000	16	0	0	0	0
1934	1,092	45	0	0	600	0	1,000	24	0	0	800	0	248	0	122	0	84	0	28	0	1,384	0	150	0	10,362	85
1935	387	0	1	0	7,147	1	2,000		10,000	10	65,702	12	98,650	12	149	0	2,501	0	1	0	2,501	0	2,547	8	127,157	50
1936	41	0	2,107	0	14,000	21	124,413	85	1,118	0	121	0	2,218	20	200	0	916	1	378	0	0	0	0	0	282,449	116
1937	141,184	65	7,091	7	82	0	1,054	0	2,027	0	1,120	0	224	2	700	0	110	0	250	0	97	0	1,546	0	149,708	142
1938	260	0	1,712	0	25,849	86	1,008	0	12,102	0	1,021	18	10,173	9	242	8	39,041	47	5	0	1	0	19	0	101,098	180
1939	4	0	1,004	1	708	0	1,082	0	7	0	1,271	1	1,725	78	3,408	0	10	0	-	0	-	0	-	0	9,231	80
1940	98	0	1,246	0	1,018	2	2,118	3	158	0	2,790	12	2,514	0	18,857	10	150	0	88	0	64	0	217	0	30,467	60
1941	3	0	516	0	820	2	1,970	4	5,081	7	22,718	12	314	0	21	0	1,217	13	10,118	7	1,564	0	21	0	50,924	47
1942	131	0	1,901	1	327	0	18,300	2	14,837	31	20,986	1	13,064	17	267	0	3,251	0	1,678	2	-	0	13,111	11	98,307	65
1943	1,579	4	69	5	1,183	8	10,161	3	130,178	57	1,771	0	2,870	3	3,041	23	-	0	-	0	-	0	-	0	190,732	107
1944	1	0	53	1	2,133	3	12,040	17	24,103	0	21,453	16	2,178	0	928	0	1,708	0	108	0	-	0	1,382	0	101,078	53
1945	110	0	1,882	0	53,202	11	41,004	56	25,150	0	28,800	8	8,280	3	2,942	14	1,000	3	1,121	-	-	0	6,141	11	165,798	91
1946	1,383	0	4,611	0	651	0	2	0	12,487	12	20,343	3	1,950	1	2,148	0	7,346	9	1,965	6	2,154	0	6,141	0	70,815	28
1947	186	1	96	0	1,158	0	30,097	2	18,052	1	195,134	18	972	1	1,141	0	100	0	218	0	5	0	301	0	272,328	50
1948	6,170	0	11,123	1	17,896	4	28,667	10	107,241	55	22,160	13	17,500	2	1,141	0	500	0	-	0	3,253	0	13,247	1	229,940	82
1949	9,672	0	3,092	2	14,876	5	1,261	2	18,195	68	2,861	17	5,762	0	958	0	3,418	0	1,551	2	578	1	16	0	85,931	18
1950	1,914	5	6,992	7	4,151	7	11,098	0	31,126	21	22,310	34	19,224	0	1,884	0	3,748	4	1,502	5	1,038	3	36,092	5	170,000	95
1951	884	0	7,823	2	7,264	1	18,287	2	15,166	6	5,384	8	972,458	25	2,509	7	621	0	-	0	-	0	546	0	1,028,741	51
1952	9,159	11	126	1	1,998	0	199,124	10	6,438	0	22,770	2	5,858	9	296	0	9,300	6	-	0	50	0	190	0	254,964	34
1953	8,377	1	368	0	10,667	2		0	11,656	0	3,572	291	5,873	1	1,920	2	887	0	42	0	500	0	3303	0	122,204	40
1954	2,551	1	84	0	20	0	57	0	6,215	1	42,076	20	2,248	2	1,000	8	3,170	8	53,341	17	0	0	5	0	106,842	49
1955	-	0	1,020	1	17,372	17	2,003	1	9,231	2	2,825	1	1,071	0	712,085	195	3,471	0	2,142	18	1,168	0	190,553	63	995,191	302
1956	9,153	3	2,771	2	2,403	2	1,202	0	21,799	10	2,300	1	5,849	13	11,071	4	-	0	1,892	0	137	3	1,249	1	61,088	42
1957	61,583	15	20,750	2	-	0	106,150	18	44,182	13	101,000	32	1,669	0	722	2	535	0	2,000	0	8,010	0	163	0	360,303	82
1958	275	0	12,301	11	11,103	0	21,115	3	24,881	2	67,537	0	12,779	29	18,851	1	11,360	0	2,536	1	2,115	0	-	0	218,253	47
1959	9,601	8	2,118	0	2,031	6	427	0	7,184	8	890	0	567	0	5,500	0	1,844	0	18,002	3	1,470	0	134	0	111,256	25
1960	531	1	712	2	29,988	1	28,056	0	2,214	3	9,950	13	9,038	1	677	0	5,266	0	3,818	1	360	0	336	0	92,976	32
1961	32	0	13,870	1	11,212	2	1,003	0	67,785	6	1,324	1	7,824	2	1,971	0	26,011	7	680	0	1,161	0	10,000	0	154,033	32
1962	881	0	24,006	9	28,117	1	5,920	0	1,899	0	2,200	2	2,128	1	708	0	3,266	3	1	0	80	0	970	0	75,247	19
1963	2,345	0	16,592	0	99,429	31	2,002	0	1,053	0	14,682	1	1,261	1	50,926	1	98	0	-	0	-	0	-	0	177,940	39
1964	787	0	1	0	97,941	11	16,763	1	1,143	0	71,666	37	29	0	917	0	9,177	3	16,132	1	750	2	139,918	12	651,842	100
1965	11,081	0	2,466	2	1,148	1	180,247	16	56,328	1	190,750	90	24,793	17	193	0	9,092	0	894	0	-	0	22,579	11	788,046	119
1966	1,111	0	12,823	2	1,912	1	13,100	16	1,514	0	1,377	1	840	1	1,715	0	698	0	-	0	828	2	23,101	5	117,004	31
1967	2,213	0	-	0	12,182	4	1,153	0	1,043	1	104,097	1	1,191	4	7,847	0	101,135	11	110	0	-	2	109,887	7	370,218	24
1968	7,456	1	2,971	0	1,925	2	2,053	0	215,670	17	11,240	0	16,350	3	1,009	3	991	0	104	0	-	0	3,071	2	339,999	31
1969	302,378	64	108,781	8	1,005	1	179,009	9	8,798	1	35,103	3	118,455	33	123,524	137	1,557	0	1,951	2	2,000	3	9,705	13	902,654	297
1970	50,941	18	267	1	10,147	3	15,911	8	28,622	6	29,117	5	1,002	1	3,595	10	16,211	23	67,045	11	111	3	1,188	1	225,103	115
1971	3,737	2	42	1	2,215	1	2,281	0	7,351	2	6,366	2	6,274	3	157,150	29	90,854	22	2,450	2	1,096	0	28,716	6	287,525	71
1972	6,271	1	11,815	28	9,180	6	20,258	4	21,953	27	1,229,819	56	21,722	23	20,738	3	19,150	9	32,857	21	298	2	21,640	6	4,465,135	554
1973	1,458	1	6,925	2	168,114	14	169,691	38	340,282	21	209,189	8	7,750	11	1,897	8	71,096	1	28,240	42	439	2	9,529	6	1,894,193	148
1974	66,428	2	26,579	0	11,566	0	11,879	21	21,085	3	11,476	12	2,885	3	5,848	0	25,140	13	10,194	5	16,082	24	570	1	576,203	121
1925–1974	1,362,971	291	376,185	284	682,408	20	1,972,372	480	1,731,165	1,190	6,222,629	1,041	1,108,556	441	1,254,294	530	1,145,428	397	436,965	176	1,144,808	482	973,660	227	17,415,792	1,704
1925–1971	2,911	6	7,104	6	27,643	7	39,167	42	56,089	16	494,153	9	28,174	9	25,000	11	9,872	11	8,739	5	2,396	4	19,175	5	318,114	96

DISTRIBUTION OF ESTIMATED FLOOD LOSSES IN THE UNITED STATES BY MAJOR RIVER SYSTEM, 1925-1974



LOSSES IN INDIVIDUAL SEVERE FLOODS IN THE UNITED STATES SINCE JULY 1902

Property Losses in Thousands of Dollars

Date *	Location	Lives **	Property
May-June 1903	Kansas, Lower Missouri, and Upper Mississippi Rivers	100	$ 40,000
March 1912	Lower Mississippi River	---	70,000
March 1913	Ohio River and tributaries	467	147,000
December 1913	Texas Rivers	177	9,000
June 1921	Arkansas River in State of Colorado	120	25,000
September 1921	Texas Rivers	215	19,000
Spring of 1927	Mississippi Valley	313	284,118
November 1927	New England Rivers	88	45,578
May-June 1935	Republican and Kansas Rivers	110	18,000
July 1935	Upper Susquehanna Tributaries	52	26,000
March-April 1936	Rivers in Eastern United States	107	270,000
Jan.-Feb. 1937	Ohio and Lower Mississippi River Basins	137	417,685
March 1938	Streams in Southern California	79	24,500
September 1938	Rivers in New England	---	37,000
July 1939	Licking and Kentucky Rivers	78	1,715
August 1940	Rivers in Southern Virginia, the Carolinas, and Eastern Tennessee	40	12,000
May 1942	Delaware and Susquehanna River Basins	33	13,000
July 1942	Upper Allegheny River and Sinnamahoning Creek Basins	15	10,000
Nov.-Dec. 1942	Willamette River	10	6,900
April-June 1943	Maumee, Wabash, Upper Mississippi, Missouri, White, and Arkansas River Basins	60	172,500
August 1943	Little Kanawha River	23	1,300
April-June 1944	Upper Mississippi, Missouri, Arkansas, Red, and Lower Mississippi River Basins and East Texas Rivers	17	82,000
Feb.-March 1945	Ohio River	18	30,000
May-July 1947	Lower Missouri and Middle Mississippi River Basins	29	235,000
May-June 1948	[1]Columbia River Basin	35	101,725
May 1949	Trinity River	10	14,000
June 1949	Shenandoah and Potomac Rivers	11	8,850
June 1950	[2]Rivers in Central West Virginia	31	4,020
June-July 1951	[3]Kansas and Missouri	28	923,224
April 1952	Red River of the North, Upper Mississippi, and Missouri River Basins	11	198,000
April-May 1953	Louisiana and Texas	12	38,959
June 1953	Northwestern Iowa	14	32,950
June 1954	Middle Rio Grande and Lower Pecos Rivers	16	19,079
October 1954	Pecos River in New Mexico	13	1,783
March 1955	Ohio River Basin	15	14,396
August 1955	[4]Hurricane "Dianne" Floods in the Northeast-	187	714,079
December 1955	[5]West Coast Rivers	61	154,532
Jan.-Feb. 1957	[6]Streams in Southeastern Kentucky, Southwestern West Virginia, and adjacent areas in Tennessee and Virginia	14	58,000
February 1957	Snake River and Tributaries	---	20,500
April-June 1957	Rivers in Texas, Arkansas, Kansas, Louisiana, Missouri and Oklahoma	18	105,000
June-July 1957	Wabash River and Tributaries	---	63,000
June 1958	White and Wabash Rivers	---	57,000
July 1958	Flash Flood on East Nishnabotna River (Iowa)	19	5,850
January 1959	Ohio River Basin	---	81,921
July 1961	Flash Flooding on Small Streams in Charleston, W.Va.	22	3,238
March 1963	Ohio River Basin	26	97,600
June 1964	Montana	31	54,279
December 1964	California and Oregon	40	415,832
March 1964	Ohio River Basin	13	81,602
March-May 1965	[7]Upper Mississippi, Missouri, and Red River of the North River Basins	16	181,325
May 1965	Brazos River	---	30,802
June 1965	South Platte River Basin	16	415,076
June 1965	Sanderson, Texas Flash Flood	26	2,715
June 1965	Arkansas River Basin	16	58,340

LATE REPORTS

LOSSES IN INDIVIDUAL SEVERE FLOODS IN THE UNITED STATES SINCE JULY 1902

Property Losses in Thousands of Dollars

Date*	Location	Lives **	Property
April-May 1966	Sabine and Trinity Basins, Texas	14	$ 20,100
June 1967	Platte River Basin in Nebraska	---	35,275
September 1967	Hurricane "Beulah" floods in Texas	---	98,239
August 1967	Tanana and Chena Rivers in Alaska	---	98,550
May 1968	Rivers in Northern New Jersey	---	166,690
Jan.-Feb. 1969	Floods in California	60	399,233
March-April 1969	[8]Snowmelt Floods in Upper Midwest	---	151,000
July 1969	[9]Northern Ohio	30	87,915
August 1969	James River Basin in Virginia	153	116,000
January 1970	Sacramento River Basin	18	38,120
September 1970	Arizona	23	5,000
October 1970	Puerto Rico	50	62,000
August 1971	New Jersey ("Doria" rainfall)	---	138,700
September 1971	Southeastern Pennsylvania	13	19,010
February 1972	Buffalo Creek, West Virginia	125	10,000
May 1972	South-central Texas Flash Floods	18	17,500
June 1972	Black Hills of South Dakota	237	164,947
June 1972	[10]Eastern U.S. (Hurricane "Agnes" floods)	105	4,019,721
Spring 1973	Mississippi System	33	1,154,770
May 1973	South Platte Basin in Colorado	---	120,400
May 1973	Flash Flooding in Mountains of North Carolina and Southwest Virginia	12	29,485
June 1973	Connecticut Basin in Vermont, Connecticut and New Hampshire	11	64,000
June 1973	San Jacinto Basin and small adjacent basins in southeast Texas	10	62,500
January 1974	Northern California & Oregon coastal rivers and Columbia Basin	12	142,641
May-June 1974	Mississippi River tributaries in Missouri, Illinois, and Iowa	---	129,510
May 1974	Platte River Basin in northwest Missouri	---	34,177

* The 1966 to 1972 Annual Issues of Climatological Data, National Summary (as well as various earlier issues) contain this table which lists additional significant severe floods during the period of record.

** No entry indicates that fewer than ten lives were lost.

References

1. Monthly Weather Review, January 1949
2. Technical Paper No. 17
3. Technical Paper No. 23
4. Technical Paper No. 26
5. Climatological Data, National Summary, December 1955
6. Climatological Data, National Summary, January 1957
7. Technical Paper No. WB-3
8. NOAA Technical Report No. 13
9. Climatological Data, National Summary, October 1970
10. Climatological Data, National Summary, June 1972; Geological Survey Professional Paper 924

LATE REPORTS

FLOOD DAMAGE ESTIMATES BY STATES

	3,579	120			-			3,329	1,280		72	2,486
					-				-	-	-	-
	226				100	-		1,000	-		11,330	
	61			6,202				91	2,400	143		
	165,767			33,063				2,780	11,854	11,321		
	2,567				-		-	80		-		
	379,360				-				-	-	-	
	117				-	-	-			-	-	-
					-	-	-		-	-	-	-
	1	1,891				12,017				426	111	
		212			-				11	3,641		
									2,300		-	
	1,371	6,222	20,896		300			8,112	2,766	11,704	1,181	
	1,003	4,021	66,748		12,958			670	8,266	12,327	20	
			1,543	7,508	128			6,778	70	240		
	1,1		9,164	4,606	4,061			1,826		370	29,792	
	6,629		55,233	3,817				16,885		35,476	1,044	
			4,147	2,842				1,908				
					-	-				-		
					-	6,400	-		-	-		
						1,181						
				17	50							
				13,826	280					3,152		
				38,718	6,018					6,591	33,976	
	1,300											
					4,500							
	23,102											
	30,072											
	977											
	9,515											
	111,381											
	74											
	11											
	977											
	5,165											

SOLAR RADIATION TOTALS

Average daily values (direct and diffuse) received on a horizontal surface, tabulated in langleys

Station	January	February	March	April	May	June	July	August	September	October	November	December	Annual

Chart I. Departure from Normal of Annual Temperature (°F) at Surface, 1976

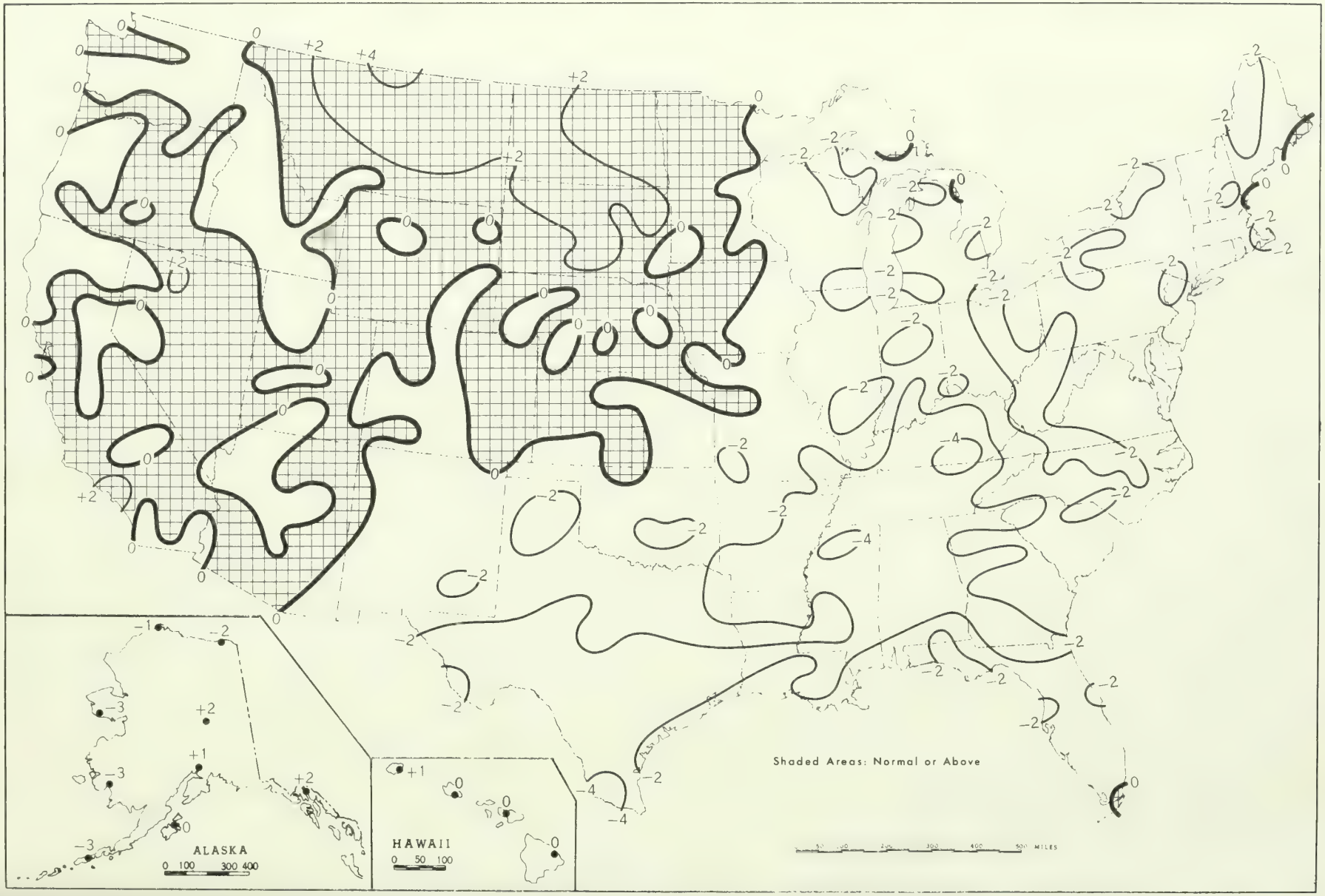


Chart II. Total Annual Precipitation (inches), 1976

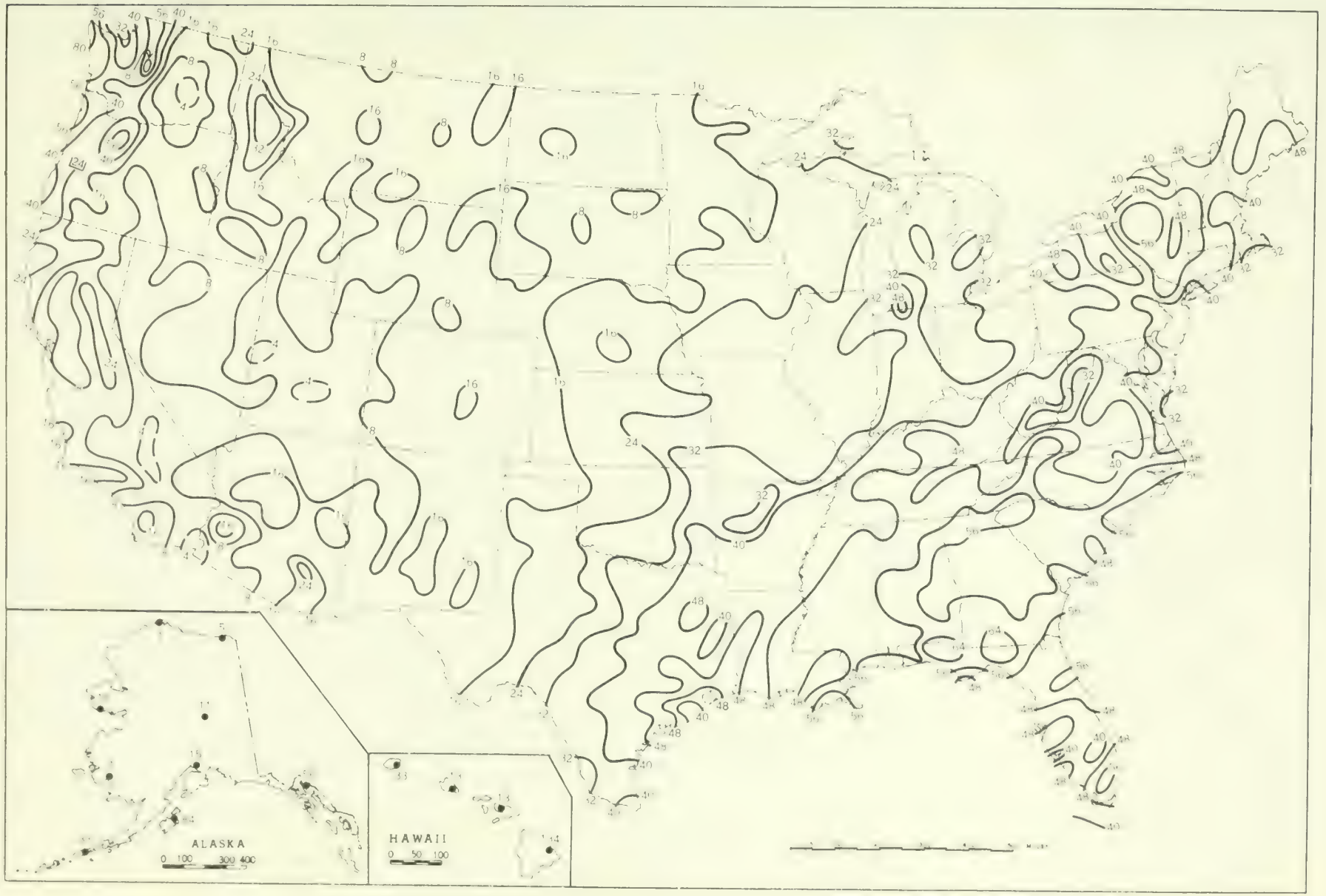
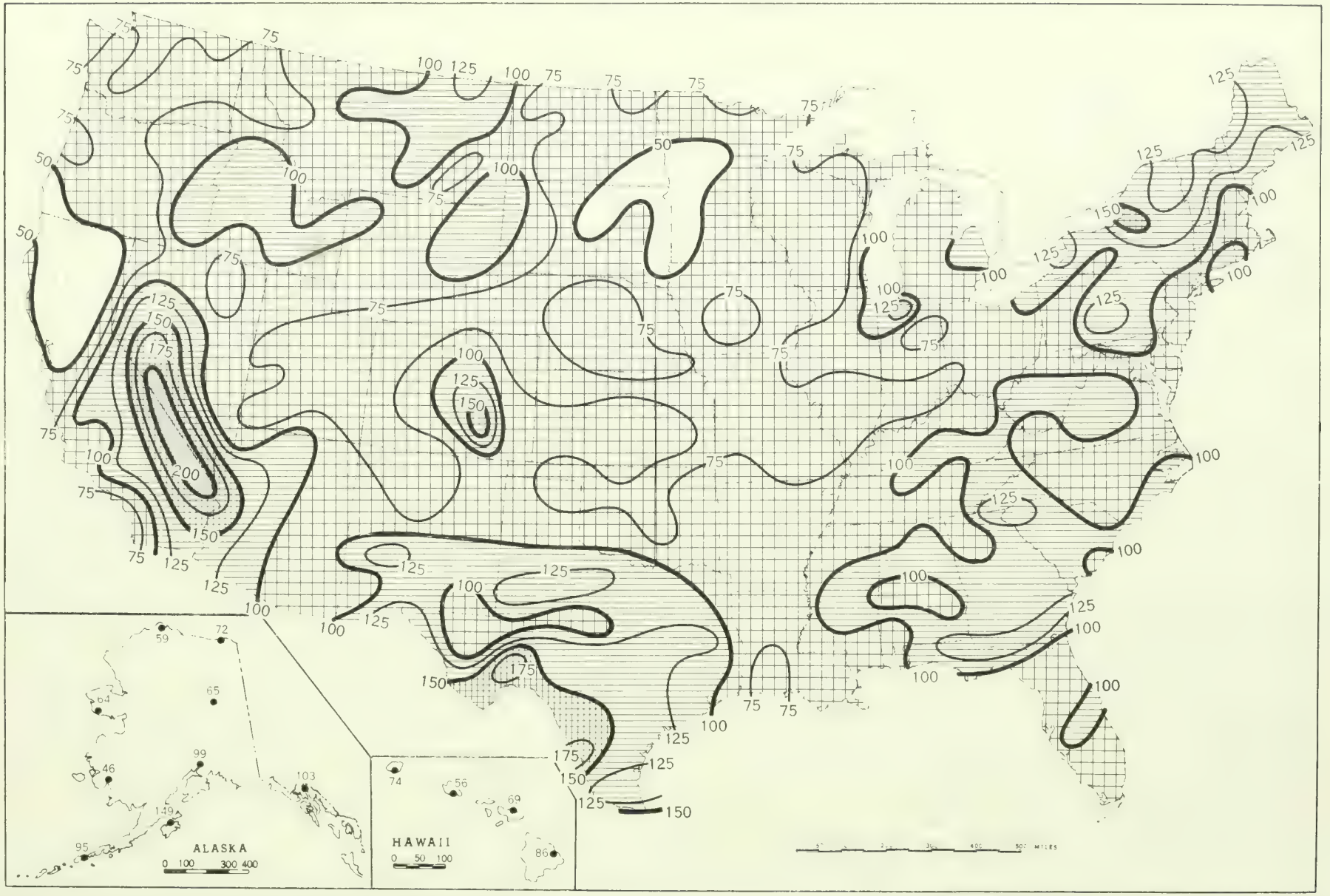


Chart III. Percentage of Normal Annual Precipitation, 1976



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